

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

August 2006

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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
FCAA .....	Federal Clean Air Act
FND.....	Federal Negative Declaration
NAAQS.....	National Ambient Air Quality Standard
NO <sub>x</sub> .....	Oxides of Nitrogen
O <sub>3</sub> .....	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. 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 meet the definition of RACT. The evaluation process produced two rules that must be updated to current RACT standards.

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

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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 eight-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 eight-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 eight-hour ozone values within the San Bernardino 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 September 15, 2006 (40 CFR 51.912).

### **Pollutant Description and Health Effects**

Ozone (O<sub>3</sub>)- 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. Air Force Plant 42 and a portion of Edwards Air Force Base are located within the District.

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 on Plant 42 (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 and Alternative Control Technology (ACTs) 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 two cases the AVAQMD has a current rule that must be updated to current RACT standards. 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. 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. In one case (Rule 1124 - *Aerospace Assembly and Component Manufacturing Operations*) the AVAQMD has an applicable RACT rule that must be updated to current RACT. Chapter 3 details AVAQMD actions identified by this evaluation process.

**Table 1 - Major Source Table**

Source	FOP	Description	Applicable RACT
Northrop-Grumman	10231816	Aerospace research, development and manufacturing	RACT applicable to control of VOC's from aerospace coatings and cleaning solvents use at existing aerospace manufacturing and rework operations including contractors and subcontractors - 1124 Aerospace Assembly and Component Manufacturing Operations
Lockheed Martin Skunk Works	9701754	Aerospace research, development and manufacturing	RACT applicable to control of VOC's from aerospace coatings and cleaning solvents use at existing aerospace manufacturing and rework operations including contractors and subcontractors - 1124 Aerospace Assembly and Component Manufacturing Operations
Antelope Valley Public Landfill	121002106	Municipal solid waste disposal	Not a major source of ozone precursors
Lancaster Landfill & Recycling Center	122802129	Municipal solid waste disposal	Not a major source of ozone precursors

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## **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. For these source categories the AVAQMD is filing FNDs. In some cases the FND is an update of an earlier FND. FND actions are summarized in Table 2 below.

**Table 2 - Federal Negative Declarations**

Source Category	Action	CTG/RACT Guidance Document
<i>New Federal Negative Declarations</i>		
Batch Processes	File FND	ACT Document-Control of VOC Emissions from Batch Processes (EPA-453/R-93-017 or EPA-453/R-93-020, 2/94).
Electric Power Generating Systems	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
Municipal Waste Combustors (MWC) & Large MWC	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
	File FND	40 CFR subpart Cb- Emission Guidelines and Compliance Schedules for Municipal Waste Combustors.
	File FND	40 CFR 62 subpart FFF, Federal Plan for Existing Large MWC Units.
Petroleum Refining Catalytic Crackers and CO Boilers	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
Metallurgical Processes	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
Adipic Acid Plants	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
	File FND	ACT Document-Nitric and Adipic Acid Manufacturing Plants (EPA-450/3-91-026, 12/91).
Explosive Manufacturing Plants	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
Coal Preparation Plants	File FND	Control Techniques for Nitrogen Oxides Emissions from Stationary Sources-Second Edition (EPA-450/1-78-001, 1/78).
Aerosol Coatings	File FND	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)
Architectural Coatings	File FND	National VOC Emission Standards for Architectural Coatings (40 CFR 59 Subpart D, 9/11/98)
Large Appliance Coating Operations	File FND	Control of Volatile Organic Emissions from Existing Stationary Sources, Vol. V: Surface Coating of Large Appliances
Surface Coating of Automotive/Transportation and Business Machine Plastic Parts	File FND	ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017, 2/94)

<b>Source Category</b>	<b>Action</b>	<b>CTG/RACT Guidance Document</b>
Wood Furniture Surface Coating	File FND	Control of VOC Emissions from Wood Furniture Manufacturing Operations CTG-MACT draft MACT 5-94; Final CTG (EPA-453/R-96-007, 4/96, NTIS PB-96-178-769). Also see 61 FR 25223 and 61 FR 50823, 9/27/96
Plywood Veneer Dryers	File FND	Control Techniques for Organic Emissions from Plywood Veneer Dryers (EPA-450/3-83-012, 5/83). This document is labeled as a Control Technique Document (CTD) rather than an ACT. The information is similar to that in an ACT.
Gasoline Bulk Plants	File FND	Control of Volatile Organic Emissions from Bulk Gasoline Plants (EPA-450/2-77-035, 12/77, NTIS PB-276-722), CTG
Equipment Leaks from Natural Gas/Gasoline Processing Plants	File FND	Control of VOC Equipment Leaks from Natural Gas/Gasoline Processing Plants (EPA-450/2-83-007, 12/83, NTIS PB-84-161-520), CTG
Organic Waste Process Vents	File FND	ACT Document- Organic Waste Process Vents (EPA-450/3-91-007, 12/90, NTIS PB-91-148270).
Leaks from Petroleum Refinery Equipment	File FND	Control of VOC Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 6/78, NTIS PB-286-158),
Air Oxidation Processes (SOCMI)	File FND	Control of VOC Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (EPA-450/3-84-015, 12/84, NTIS PB-85-164-275), CTG.
Reactor and Distillation Processes (SOCMI)	File FND	Control of VOC Emissions from Reactor Processes and Distillation Operations in SOCMI (EPA-450/4-91-031, 11/15/93, NTIS PB-92-180-009), CTG.
Tank Truck Gasoline Loading Terminals >76,000 L	File FND	Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals (EPA-450/2-77-026, 12/77, NTIS PB-275-060), CTG.
Petroleum Refinery Process Heaters	File FND	ACT Document-NOx Emissions from Process Heaters (Revised) (EPA-453/R-93-034, 9/93).
Fossil Fuel-Fired Utility Boilers	File FND	ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94).
Iron and Steel Manufacturing	File FND	NOx Emissions from Iron and Steel Mills (EPA-453/R-94-065, 9/94).
Commercial Bakery Ovens	File FND	ACT Document-Bakery Oven Emissions (EPA-453/R-92-017, 12/92).
Ethylene Oxide Sterilization/Fumigation Operations	File FND	ACT Document-Ethylene Oxide Sterilization/Fumigation Operations (EPA-450/3-89-007, 3/89, NTIS PB-90-131-434).
Phosphate Fertilizer Plants	File FND	Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants (EPA-450/2-77-005, 3/77).
Leather Finishing Operations	File FND	Air Emissions and Control Technology for Leather Tanning and Finishing Operations (EPA-453/R-93-025, 6/93).
Manufacture of Synthesized Pharmaceutical Products	File FND	Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products (EPA-450/2-78-029, 12/78, NTIS PB-290-580), CTG.
Manufacture of Styrene-Butadiene Copolymers	File FND	Control of VOC Emissions from Manufacture of Styrene-Butadiene Copolymers-Preliminary Draft CTG, 4/81.
Polystyrene Foam Manufacturing	File FND	Polystyrene Foam Manufacturing (EPA-450/3-90-020, NTIS PB-91-102111).
Manufacture of Pneumatic Rubber Tires	File FND	Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 12/78, NTIS PB-290-557), CTG.

<b>Source Category</b>	<b>Action</b>	<b>CTG/RACT Guidance Document</b>
Sulfuric Acid Manufacturing Units	File FND	Control of Sulfuric Acid Mist Emissions from Existing Sulfuric Acid Production Units (EPA-450/2-77-019, 9/77).
Industrial Waste Water	File FND	ACT Document: Air Emissions from Industrial Wastewater (4/94). ACT consists of cover memo with option tables and CTG draft.
Collection and Treatment of Industrial Wastewater from the Organic Chemicals, Plastics and Synthetic Fibers Industry, the Pesticides Manufacturing Industry and the Hazardous Waste Treatment, Storage and Disposal Facilities Industry	File FND	Control of VOC Emissions from Industrial Wastewater CTG Draft (EPA-453/D-93-056, 9/92).
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSD)	File FND	Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Vegetable Oil Processing	File FND	Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Beer and Wine Production	File FND	Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Whiskey Warehousing	File FND	Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
<i>Federal Negative Declarations Requiring Updating</i>		
Manufacture of Pharmaceuticals and Cosmetics	FND filed 3/28/00	ACT Document-Control of VOC Emissions from Batch Processes (EPA-453/R-93-017 or EPA-453/R-93-020, 2/94).
Manufacture of High Density Polyethylene, Polypropylene and Polystyrene	FND filed 3/07/04	Control of VOC Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins (EPA-450/3-83-008, 11/83, NTIS PB-84-134-600), CTG.
Equipment used in Synthetic Organic Chemical Polymers and Resin Manufacturing	FND filed 7/19/04	Applies to emissions from equipment used in synthetic organic chemical polymers and resins
Refinery Vacuum-Producing Systems, Wastewater Separators and Process Unit Turnarounds	FND filed 2/16/99	Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 10/77, NTIS PB-275-662), CTG.
Motor Vehicle Assembly Line Coating Operations	FND filed 1/12/99	ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017,
Marine Coating Operations	FND filed 6/23/98	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)
Metal Container, Closure and Coil Coating Operations	FND filed 6/3/04	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)
Magnet Wire Coating Operations	FND filed 6/3/04	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)

Source Category	Action	CTG/RACT Guidance Document
	FND filed 6/3/04	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating of Insulation of Magnet Wire (EPA-450/2-77-033, 12/77, NTIS PB-278-258), CTG.
Glass Melting Furnaces	FND filed 7/23/99	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
	FND filed 7/23/99	ACT Document-NOx Emissions from Glass Manufacturing (EPA-453/R-94-037, 6/94).
Cement Kilns	FND filed 7/23/99	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
	FND filed 7/23/99	ACT Document-NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 3/94). Updated September 2000.
Nitric Acid Units	FND filed 3/28/00	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).
	FND filed 3/28/00	ACT Document-Nitric and Adipic Acid Manufacturing Plants (EPA-450/3-91-026, 12/91).
Boilers and Process Heaters in Petroleum Refineries	FND filed 5/13/99	Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).

## Required RACT Actions

The AVAQMD has identified three required RACT rule actions: a rule adoption already in process and two rule updates. 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 approved on 5/6/96, prior to the date of the applicable CTG.<sup>1</sup> The AVAQMD is currently updating Rule 1124 to comply with the CTG.

### Stationary Internal Combustion Engines

The AVAQMD has stationary internal combustion engines at major sources within its jurisdiction and current rules that apply 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*. Each rule is either not yet approved or was approved prior to the date of the applicable ACT.<sup>2</sup> The AVAQMD will update Rules 1110 and 1110.2 to reflect current stationary internal combustion engine RACT.

<sup>1</sup> “Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations CTG & MACT (See 59 FR 29216, 6/6/1994,” CTG (Final), EPA-453/R-97-004, 12/97.

<sup>2</sup> “ACT Document - NO<sub>x</sub> Emissions from Stationary IC Engines,” EPA-453/R-93-032, 7/93. Updated 9/2000.

## **Proposed Rule Adoption Schedule**

The AVAQMD will adopt all identified rules or updates by the end of calendar year 2007.

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## **Appendices**

### A - RACT Evaluation Table

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## APPENDIX A - RACT EVALUATION TABLE

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Miscellaneous</b>						
<b>Batch Processes</b>						
	ACT Document-Control of VOC Emissions from Batch Processes (EPA-453/R-93-017 or EPA-453/R-93-020, 2/94).	Applies to manufacture of: Plastics Material and Resin Manufacturing (SIC 2821, NAICS 325211); Pharmaceutical Preparations (SIC 2833, 2834); Gum and Wood Chemical Manufacturing (SIC 2861, NAICS 325191); Cyclic Crudest and Intermediates (SIC 2865); Pesticides and Other Agricultural Manufacturing (SIC 2879, NAICS 325320); Industrial Organic Chemicals (SIC 2869).	No Batch Process sources.			File FND
			1141 – Control Of Volatile Organic Compound Emissions From Resin Manufacturing (See Polyester Resin Source Category below)	Rescinded 3/17/04	40 CFR 52.220(c)(189)(i)A(8) - 9/21/04 69 FR 56355.	FND Filed 3/17/04
			1103 – Pharmaceuticals And Cosmetics Manufacturing Operations (See Pharmaceutical Products Source Category below)	Rescinded 1/18/00	40 CFR 52.220(c)(69)(v) - 11/03/00 65 FR 66175	FND Filed 1/18/00

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>NOx Sources</b>						
	1. Guideline for Determining the Applicability of Nitrogen Oxides Requirements Under Section 182(f), EPA, 12/93.	Section 182(f) requires States to apply the same requirements to major stationary sources of NOx as are applied to major stationary sources of volatile organic compounds (VOC). The new NOx requirements are reasonably available control technology (RACT) and new source review (NSR). These requirements apply to major stationary sources in certain areas that are designated non-attainment for the ozone national ambient air quality standard (NAAQS) and in an ozone transport region.	Regulation XIII – New Source Review (for NOx and VOC). Rules: 1300 – General 1301 – Definitions 1302 – Procedure 1303 – Requirements 1304 – Emissions Calculations 1305 – Emissions Offsets 1306 – Electric Energy Generating Facilities 1309 -- Emission Reduction Credits	Adopted 10/5/79, Amended 3/20/01	40 CFR 52.220(c)(240)(i)(A)(1) - 12/04/96 61 FR 64291	No Action Required
	2. Summary of NOx Control Technologies and their Availability and Extent of Application (EPA-450/3-92-004, 2/92).	The study is to include an examination of the availability and extent of control technologies (CT) for sources of oxides of nitrogen (NO <sub>x</sub> ), which include nitric oxide (NO) and nitrogen dioxide (NO <sub>2</sub> ). Availability and extent of application below:	474 – Fuel Burning Equipment - Oxides of Nitrogen	Adopted 5/7/76, Amended 12/4/81	Submitted as Amended 12/4/81. No known USEPA action	No Action Proposed
			1121 – Control Of Nitrogen Oxides From Residential-Type, Natural-Gas-Fired Water Heaters	Adopted 12/1/78, Amended 3/10/95	40 CFR 52.220(c)(220)(i)(C)(1) - 11/1/96 61 FR 56470	No Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		1. <i>CT for Boilers (Utility; Industrial, Commercial and Institutional)</i>	1146 – Emissions OF Oxides Of Nitrogen From Industrial, Institutional and Commercial Boilers, Steam Generators, And Process Heaters	Adopted 5/13/94	40 CFR 52.220(c)(198)(i)(H)(1) - 9/6/95 60 FR 46220	No Action Required
			1146.1 – Emissions Of Oxides Of Nitrogen From Small Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters	Adopted 10/5/90, Amended 5/13/94	40 CFR 52.220(c)(198)(i)(H)(1) - 9/6/95 60 FR 46220	No Action Required
			1135 – Emissions of Oxides Of Nitrogen From Electric Power Generating Systems	Adopted 8/4/89, Amended 7/19/91	Not SIP, 63 FR 42728 Specifically excludes AV)	File FND
		2. <i>CT for Commercial and Residential Space Heaters</i>	1111 – NOx Emissions From Natural-Gas-Fired, Fan-Type Central Furnaces	Adopted 12/1/78, Amended 7/8/83	40 CFR 52.220 (c)(148)(vi)(A) - 5/3/84 49 FR 18830	No Further Action
		3. <i>CT for Prime Movers (ICE, Gas Turbines)</i>	1110 – Emissions From Stationary Internal Combustion Engines (Demonstration)	Adopted 11/6/81	40 CFR 52.220(c)(121)(i)(C) - 5/3/84 49 FR 18822	Update rule to meet current RACT
			1110.2 – Emissions From Stationary, Non-road & Portable Internal Combustion Engines	Adopted 8/3/90, Amended 5/15/01	Submitted as Amended 5/15/01. No known USEPA action on any submission	Waiting USEPA Action
			1134 – Emissions Of Oxides Of Nitrogen From Stationary Gas Turbines	Adopted 8/4/89, Amended 4/11/97	40 CFR 52.220(c)(230)(i)(B)(1)	No Further Action

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		4. CT for Municipal Waste Combustors (Combustion and Post-Combustion)	(No Sources/No Rule)			File FND
		5. CT for Industrial Processes Involving Combustion (Petroleum Refining and Chemical Man. Process Heaters and Boilers; Petroleum Refining Catalytic Crackers and CO Boilers; Metallurgical Processes; Glass Manufacturing; Cement Manufacturing);	1109 – Emissions of Oxides Of Nitrogen From Boilers And Process Heaters In Petroleum Refineries	Rescinded 4/21/98	FND Approved 5/17/00	FND Filed - Update
			Petroleum Refining Catalytic Crackers and CO Boilers (No Rule)			File FND
			Metallurgical Processes (No Rule)			File FND
			1117 – Emissions Of Oxides Of Nitrogen From Glass Melting Furnaces	Rescinded 3/16/99	40 CFR 52.220 59)(v)(E) - 5/17/00 65 1267	File FND
			1112 – Emissions of Oxides From Cement Kilns	Rescinded 3/16/99	FND Approved 5/17/00	FND Filed – File Update
			6. CT for Non-combustion Industrial Processes (Nitric Acid Plants; Adipic Acid Plants; Explosives Manufacturing Plants)	1159 – Nitric Acid Units - Oxides Of Nitrogen	Rescinded 1/18/2000	40 CFR 20(c)(168)(i)(H)(3) - 5/00 65 FR 66175.
			Adipic Acid Plants (No Rule)			File FND
			Explosive Manufacturing Plants (No Rule)			File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	3. Control Techniques for Nitrogen Oxides Emissions from Stationary Sources- Second Edition (EPA-450/1-78-001, 1/78).	Current and advanced methods for stationary source NOx control operate either through suppression of NO, formation in the process or through physical or chemical removal of NO, from the stack gases. Same Applicability as previous document (earlier version) except for Coal Preparation Plants. See analysis for item 2 above.	Coal Preparation Plants ( <i>No Rule</i> )			File FND
RACM/RACT						
	Beyond VOC RACT CTG Requirements (EPA-453/R-95-010, 4/95, NTIS PB-95-239-497), CTG.	This document identifies and compares, by CTG source category, examples of State and local agency rules that exceed or may exceed the RACT requirements that are specified in the Federal CTGs. This study is limited to CTG Groups I, II, and III only, which cover 28 source categories below:	AVAQMD Rules were obtained from SCAQMD when AVAQMD split from SCAQMD in 1997. Therefore, the rules evaluated in this document have the same applicability as those evaluated in this document. These source categories will either be indicated as "Meets/Exceeds" "Beyond VOC RACT Requirements" document (EPA-453/R-95-010, 4/95), be a Fed Neg Dec, or a Rule will be adopted to meet RACT if the source is present with no Rule.			No Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<p><i>Cutback Asphalt; Fixed-Roof Petroleum Tanks; Gasoline Bulk Plants; Gasoline Loading Terminals; Misc. Refinery Sources; Stage I Vapor Recovery; Solvent Metal Cleaning (Degreasing); Surface Coating of: Autos and Light-Duty Trucks; Cans; Fabrics; Large Appliances; Metal Coils; Metal Furniture; Magnet Wire; Paper; External Floating Roof Petroleum Tanks; Gasoline Tank Truck and Vapor Collection System Leaks; Graphic Arts; Leaks from Petroleum Refinery Equipment; Surface Coating of Miscellaneous Metal Parts and Products; Pneumatic Rubber Tire Manufacturing; Surface Coating of Flat Wood Paneling; Synthesized Pharmaceutical Products; Air Oxidation Processes - SOCMI; Equipment Leaks from Natural Gas/Gasoline Processing Plants; Large Petroleum Dry Cleaners; Polymer Manufacturing; SOCMI and Polymer Manufacturing Equipment Leaks.</i></p>				

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
Stationary VOC Sources						
	1. Control Techniques for Volatile Organic Emissions from Stationary Sources (EPA-450/2-78-022, 5/78, Group II, NTIS PB-284-804), CTG. Does not define RACT for any particular source.	Because of the general nature of the document, it should not be used as the basis for developing regulations or enforcing them. Additional information for specific industries may be available from EPA's Office of Air Quality Planning and Standards. The control techniques described in this document represent a broad spectrum of information from many technical fields. The devices, methods, and principles have been developed and used over many years and are constantly being revised and improved. They are recommended as the techniques generally available to control hydrocarbon and organic solvent emissions.				No Action Required
	2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).	Applies as a summary document to sources of VOC emissions from the following source categories below:				See Individual RACT discussions. Sources not included, as individual discussions will be addressed here.

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<p><b>Petroleum Refineries:</b> Equipment Leaks, Vacuum Processing Systems, Process Unit Turnarounds, Cooling Towers, and Wastewater Systems</p>				See Individual RACT discussions.
		<p><b>Petroleum Products - Storage, Transportation, and Marketing:</b> Oil and Gas Production Fields, Natural Gas and Natural Gasoline Processing Plants, Petroleum Liquid Storage Tanks, Ship and Barge Transfer of Gasoline and Crude Oil, Bulk Gasoline Terminals, Gasoline Bulk Plants, Service Station Storage Tanks, Vehicle Refueling at Service Stations, and Vessel Cleaning</p>				See Individual RACT discussions.
		<p><b>Organic Chemical Manufacture:</b> Process Vents (Reactor Processes, Air Oxidation, and Distillation Operations), Volatile Organic Liquid Storage Tanks, Equipment Leaks, and Transfer</p>				See Individual RACT discussions.

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<b>Industrial Manufacturing Processes:</b> Paint and Varnish, Vegetable Oil Processing, Pharmaceutical, Rubber Products (Styrene - Butadiene Copolymer, and Pneumatic Rubber Tire), Polymers and Resins (Polyethylene, Polypropylene, Polystyrene, and Polyester Resin), Synthetic Fibers, Plywood Manufacture, Beer and Wine Production, Whiskey Warehousing, Other Industrial				See Individual RACT discussions.
			Vegetable Oil Processing	No source, no rule		File FND
			Beer and Wine Production	No source, no rule		File FND
			Whiskey Warehousing	No source, no rule		File FND
		<b>Application of Paints, Inks, and Other Coatings:</b> Surface Coating (Large Appliances, Magnet Wire, Automobiles and Light Duty Trucks, Cans, Metal Coils, Paper (Pressure Sensitive Tapes and Labels, and Magnetic Tapes), Fabric Coating and Printing, Metal Furniture, Wood Furniture, Flat Wood Paneling, Other Metal Products, Large Aircraft, Ships and Recreational Boats, Plastic Parts for Business Machines, Flexible Vinyl and Urethane,				See Individual RACT discussions.

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		Architectural Coatings, Auto Refinishing, Other Surface Coating), <i>Graphic Arts</i> (Rotogravure, Flexography, Lithography, Letterpress, and Flexible Packaging), and <i>Adhesives</i>				
			442 – Usage of Solvents (Covers adhesives)			Meets RACT, no further action required.
		<b>Other Solvent Use:</b> Solvent Metal Cleaning, Petroleum Dry Cleaning, Cutback Asphalt				See Individual RACT discussions.

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<b>Other Miscellaneous Sources:</b> Stationary Fuel Combustion (External and Internal), Forest, Agricultural and Other Open Burning, Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDf), and Publicly Owned Treatment Works (POTW's)				See Individual RACT discussions. Sources not included, as individual discussions will be addressed here.
			Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDf)			File FND
			Publicly Owned Treatment Works (POTW's)			District to adopt RACT Rule for this category.
<b>VOC Model Rules</b>						
	Model VOC Rules for RACT (EPA, OAQPS, 6/92).	Model VOC RACT Rules for 29 CTG Categories listed below, and generic non-CTG RACT Rule model.				See individual category discussions

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<p><i>Auto. and Light-Duty Truck Coating Ops; Can, Coil, Paper, Fabric, Vinyl, Metal Furniture, Large Appliance, Magnet Wire, and Misc. Metal Parts Coating; Coating of Flat Wood Paneling; Bulk Gasoline Plants; Bulk Gasoline Terminals; Gasoline Dispensing Facility – Stage I Vapor Recovery; Gasoline Tank Trucks; Petroleum Refinery Sources; Leaks from Refinery Equipment; Petroleum Liquid Storage in External Floating Roof Tanks and Fixed Roof Tanks; Leaks from Natural Gas/Gasoline Processing Eqp; Solvent Metal Cleaning; Cutback and Emulsified Asphalt; Man. of Synthesized Pharmaceutical Products; Pneumatic Rubber Tire Manufacturing; Graphic Arts Systems; Petroleum Solvent Dry Cleaners; Perchloroethylene Dry Cleaning; Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment; Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins; Air Oxidation Processes in SOCMI; Other Facilities that Emit VOC (not subject to above sources)</i></p>				

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Fugitive</b>						
	Fugitive Emission Sources of Organic Compounds-Additional Information on Emissions, Emission Reductions, and Costs (EPA-450/3-82-010, 4/82, NTIS PB-82-217-126). Does not define RACT for any particular source.	Applies to a number of equipment components used in chemical manufacturing processes in the Synthetic Organic Chemical Manufacturing Industry (SOCMI) which are sources of fugitive emissions (pumps, valves, flanges, compressors, sampling systems, open-ended lines, and pressure relief valves). These points of interface such as seals, packings, and gaskets have a tendency to fail mechanically and thereby leak process fluid. These leaks (if the process fluid is a volatile organic compound) cause emissions of volatile organic compounds (VOC) to the atmosphere.	No SOCMI Sources, No Rule			No Action Required
<b>Coatings &amp; Solvents</b>						
<b>Coating</b>						
	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).	Applies to surface coating operations.	1104 Wood Flat Stock Coating Operations	Adopted: 04/07/78 Amended: 08/02/91	Approved 6/23/94, 59 FR 23255, 40 CFR 52.220(c)(186)(i)(C)	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
			1106 Marine Coating Operations	Adopted 12/04/88 Rescinded 01/20/98	40 CFR 52.220(c)(215)(i)(A)(6) - 01/13/99 64 FR 2141	FND Filed - Update
			1106.1 Pleasure Craft Coating Operations	Adopted: 05/01/92; Amended: 03/08/96	Approved 4/13/95, 60 FR 18750, 40 CFR 52.220(c)(189)(i)(A)(6)	No Further Action Required
			1107 Coating of Metal Parts and Products	Adopted 06/01/79 Amended 03/08/96	Approved 7/14/95, 60 FR 36230, 40 CFR 52.220(c)(222)(i)(A)(1)	No Further Action Required
			1113 Architectural Coatings	Adopted 09/02/77 Amended 03/18/03	LA/LD 40 CFR 52.220(c)(316)(I)(F)(1) - 08/26/04 69 FR 52432 LA/LD applied to averaging provisions only. Provisions sunset by their own terms 01/05. LA/LD no longer applies.	No Further Action Required
			1124 Aerospace Assembly and Component Manufacturing Operations	Adopted 07/06/79 Amended 12/13/96	Approved for SCAQMD area only 8/17/98, 63 FR 43884; Approved 5/6/96, 61 FR 20136, 40 CFR 52.220(c)(215)(I)(A)(5)	No Further Action Required
			1125 Metal Container, Closure, and Coil Coating Operations	Adopted 05/06/79 Rescinded 02/17/04	40 CFR 52.220(c)(215)(I)(A)(7)- 09/21/04 69 FR 56355	FND Filed - Update
			1126 Magnet Wire Coating Operations	Adopted 02/02/79 Rescinded 02/17/04	40 CFR 52.220(c)(215)(I)(A)(7)- 09/21/04 69 FR 56355	FND Filed - Update

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
			1128 Paper, Fabric, and Film Coating Operations	Adopted 05/04/79 Amended 03/08/96	Approved 12/20/93, 58 FR 66287, 40 CFR 52.220(c)(189)(l)(A)(3)	No Further Action Required
			1129 Aerosol Coatings	Adopted 11/02/90 Rescinded 03/08/96		File FND
			1130 Graphic Arts	Adopted 10/03/80 Amended 03/08/96	Approved 10/31/95, 60 FR 55312, 40 CFR 52.220(c)(225)(i)(A)(1)	No Further Action Required
			1130.1 Screen Printing Operations	Adopted 08/02/91, Amended 12/13/96	Withdrawn 6/12/96, 61 FR 43977; 40 CFR 52.220(c)(194)(i)(G)(1)	No Further Action Required
			1136 Wood Products Coatings	Adopted: 09/16/83, Amended: 06/14/96	Approved 10/31/95, 60 FR 55312, 40 CFR 52.220(c)(225)(i)(A)(1)	No Further Action Required
			1141.1 Coatings and Ink Manufacturing	Adopted 11/04/83 Amended 03/06/92	Approved 05/04/99 64 FR 23774, 40 CFR 52.220(c)(189)(i)(A)(7)	No Further Action Required
			1145 Plastic, Rubber, and Glass Coatings	Adopted 07/08/83 Amended 02/14/97	Approved 12/20/93, 58 FR 66286, 40 CFR 52.220(c)(191)(i)(A)(1)	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
			1151 Motor Vehicle and Mobile Equipment Coating Operations	Adopted 07/08/88 Amended 07/20/99	Approved 04/10/00 65 FR 18901, 40 CFR 52.220(c)(270)(I)(E)(1)	No Further Action Required
Aerospace: Coating Operations at Manufacturing And Rework Operations						
	Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations CTG & MACT (See 59 FR 29216, 6/6/1994); CTG (Final), (EPA-453/R-97-004, 12/97).	Applies to aerospace coatings and cleaning solvents use at aerospace manufacturing and rework operations including contractors and subcontractors	1124 Aerospace Assembly and Component Manufacturing Operations	Adopted 07/06/79 Amended 12/13/96	Approved for SCAQMD area only 8/17/98, 63 FR 43884; Approved 5/6/96, 61 FR 20136, 40 CFR 52.220(c)(248)(I)(A)(5)	Currently Updating
Architectural Coating						
	National VOC Emission Standards for Architectural Coatings (40 CFR 59 Subpart D, 9/11/98).	Applies to the manufacture or importation of coatings for the field application to stationary structures and their appurtenances, portable buildings, pavements and curbs. Excludes adhesives and coatings designed by the mfg for shop application or for application to non-stationary structures.	No Source/No Rule			File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Automobile Coating</b>						
	1. Control of Volatile Organic Emissions from Existing Stationary Sources - Vol. II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008, 5/77, NTIS PB-272-445), CTG.	Applies to surface coating of Cans	1125 Metal Container, Closure, and Coil Coating Operations	Adopted 05/06/79 Rescinded 02/17/04	40 CFR 52.220(c)(215)(l)(A)(7)-09/21/04 69 FR 56355	Exceeds Beyond RACT doc No Action Required
		Applies to surface coating of Coils	1125 Metal Container, Closure, and Coil Coating Operations	Adopted 05/06/79 Rescinded 02/17/04	40 CFR 52.220(c)(215)(l)(A)(7)-09/21/04 69 FR 56355	
		Applies to surface coating of Paper	1128 Paper, Fabric, And Film Coating Operations	Adopted 05/04/79 Amended 03/08/96	Approved 12/20/93, 58 FR 66287, 40 CFR 52.220(c)(189)(l)(A)(3)	
		Applies to surface coating of Fabrics	1128 Paper, Fabric, And Film Coating Operations	Adopted 05/04/79 Amended 03/08/96	Approved 12/20/93, 58 FR 66287, 40 CFR 52.220(c)(189)(l)(A)(3)	
		Applies to surface coating operations at Automotive and Light Duty Truck Assembly Plants.	1115 Motor Vehicle Assembly Line Coating Operations	Adopted 3/2/1979, Rescinded 11/18/1997	40 CFR 52.220(c)(222)(l)(A)(2) 05/17/00 60 FR 31267	

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. Reduction of VOC Emissions from Automobile Refinishing (EPA-450/3-88-009, 10/88, NTIS PB-89-148-282), ACT.	2. The purpose of this document is to provide technical information that State and local agencies can use to develop strategies for reducing VOC emissions from automobile refinishing operations. (1) small shops with annual sales up to \$150,000 that perform 6 partial vehicle jobs per week, (2) medium shops with annual sales between \$150,000 and \$750,000 that perform 13 partial and 1 complete vehicle jobs per week, and (3) volume shops with annual sales of greater than \$750,000 that perform 14 partial and 15 complete vehicle jobs per week.	1151 Motor Vehicle And Mobile Equipment Coating Operations	Adopted 7/8/1988, Amended 7/20/99	4/10/00 65 FR 18901, 40 CFR 52.220(c)(270)(I)(E)(1)	No Further Action Required
	3. ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017,	3. BACKGROUND The purpose of this document is to provide information on alternative control techniques (ACT) for volatile organic compound (VOC) emissions from the surface coating of plastic parts for automotive/transportation.	1115 Rescinded, <i>Fed Neg Dec.</i> Motor Vehicle Assembly Line Coating Operations	Adopted 3/2/1979, Rescinded 11/18/1997	40 CFR 52.220(c)(222)(I)(A)(2) 05/17/00 60 FR 31267	FND Filed - Update

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	<p>4. ACT Document: Auto Refinishing (EPA-453/R-94-031, 4/94, NTIS PB-94-191-699). Note a national rule was issued in 1998 after the ACT. See 40 CFR 59.100.</p>	<p>4. As used in this document, "Automobile" refers to passenger cars, vans, motorcycles, trucks, and all other mobile equipment that is capable of being driven or drawn upon a highway, such as farm machinery and construction equipment. "Refinishing" refers to any coating applications (to the interior or exterior bodies of automobiles) that occur subsequent to those at original equipment manufacturer (OEM) assembly plants, and includes dock repair of imported automobiles and dealer repair of transit damage before the sale of an automobile. The automobile refinish industry consists of manufacturers that produce refinish coatings, distributors or jobbers" that distribute coatings and other equipment, and body shops that repair and refinish automobiles.</p>	<p>1151 Motor Vehicle And Mobile Equipment Coating Operations</p>	<p>Adopted 7/8/1988, Amended 7/20/99</p>	<p>4/10/00 65 FR 18901, 40 CFR 52.220(c)(270)(I)(E)(1)</p>	<p>No Further Action Required</p>

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	5. National VOC Emission Standards for Automobile Refinish Coatings (40 CFR 59 Subpart B, 9/11/98).	<p>5. (a) The provisions of this subpart apply to automobile refinish coatings and coating components manufactured on or after January 11, 1999 for sale or distribution in the United States.</p> <p>(b) Regulated entities are manufacturers and importers of automobile refinish coatings or coating components that sell or distribute these coatings or coating components in the United States.</p> <p>(c) The provisions of this subpart do not apply to automobile refinish coatings or coating components meeting the criteria in paragraphs (c)(1) through (c)(6) of this section.</p> <p>(1) Coatings or coating components that are manufactured (in or outside the United States) exclusively for sale outside the United States.</p> <p>(2) Coatings or coating components that are manufactured (in or outside the United States) before January 11, 1999.</p> <p>(3) Coatings or coating components that are manufactured (in or outside the United States) for use by original equipment manufacturers.</p>	1151 Motor Vehicle And Mobile Equipment Coating Operations	Adopted 7/8/1988, Amended 7/20/99	4/10/00 65 FR 18901, 40 CFR 52.220(c)(270)(I)(E)(1)	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		(4) Coatings that are sold in nonrefillable aerosol containers. (5) Lacquer topcoats				
<b>Graphic Arts</b>						
	1. Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VIII: Graphic Arts - Rotogravure and Flexography (EPA-450/2-78-033, 12/78, NTIS PB 292-490), CTG.	Applies to graphic arts operations that use the flexographic and rotogravure printing processes as applied to both publication and packaging printing.	1130 Graphic Arts	Adopted 10/3/1980, Amended 3/8/1996	Approved 10/31/95, 60 FR 55312, 40 CFR 52.220(c)(225)(i)(A)(1)	Meets/Exceeds Beyond RACT doc No further action required
	2. ACT Document: Offset Lithographic Printing (EPA-453/R-94-054, 6/94, NTIS PB-95-201-018).	Applies to graphic arts operations that use the offset lithographic printing process.	1130 Graphic Arts	Adopted 10/3/1980, Amended 3/8/1996	Approved 10/31/95, 60 FR 55312, 40 CFR 52.220(c)(225)(i)(A)(1)	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Large Appliances</b>						
	Control of Volatile Organic Emissions from Existing Stationary Sources, Vol V: Surface Coating of Large Appliances.	Applies to the coating of large appliances, such as doors, cases, lids, panels and interior support parts of residential and commercial appliances.	No Source/No Rule			Beyond RACT category with no SC Rule - file FND
<b>Magnet Wire</b>						
	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating of Insulation of Magnet Wire (EPA-450/2-77-033, 12/77, NTIS PB-278-258), CTG.	Applies to wire coating curing ovens.	1126 Magnet Wire Coating Operations	Adopted 2/2/1979, Rescinded 2/17/04, FND	40 CFR 52.220(c)(215)(I)(A)(7)-09/21/04 69 FR 56355	Meets/Exceeds Beyond RACT doc - file FND
<b>Metal Coil, Container &amp; Closure</b>						
	See automobile coating.		1125 – Metal Container, Closure, And Coil Coating Operations	Adopted 5/6/1979, Rescinded 2/17/04, FND	40 CFR 52.220(c)(215)(I)(A)(7)-09/21/04 69 FR 56355	File FND
<b>Metal Furniture</b>						
	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume III: Surface Coating of Metal Furniture (EPA-450/2-77-032, 12/77, NTIS PB-278-257), CTG.	Applies to surface coating of metal furniture by metal furniture manufacturers.	1107 Coating Of Metal Parts And Products	Adopted 6/1/1979, Amended 3/8/96	Approved 7/14/95, 60 FR 36230, 40 CFR 52.220(c)(222)(i)(A)(1)	Beyond RACT category with no SC Rule

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
Metal Parts & Products						
	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VI: Surface Coating of Miscellaneous Metal Parts and Products (EPA-450/2-78-015, 6/78, NTIS PB-286-157), CTG.	Applies to industries that are not covered by specific CTG documents.	1107 Coating Of Metal Parts And Products	Adopted 6/1/1979, Amended 3/8/96	Approved 7/14/95, 60 FR 36230, 40 CFR 52.220(c)(222)(i)(A)(1)	Meets/Exceeds Beyond RACT doc - No further action required
Paper & Fabric						
	See automobile coating.					

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
Plastic Parts						
	<p>1. ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017, 2/94).</p>	<p>The document presents options only, and does not contain a recommendation on RACT. Plastic parts are coated to provide color, texture, and protection; improve appearance and durability; attenuate electromagnetic interference/radio frequency interference - (EMI/RFI signals); and conceal mold lines and flaws. It can be categorized into three general sectors: (1) automotive/transportation, (2) business machines, and (3) miscellaneous. The automotive/transportation sector includes the interior and exterior plastic components of automobiles, trucks, tractors, lawnmowers, and other mobile equipment. The business machines sector includes plastic housings for electronic office equipment such as computers, copy machines, and typewriters, and for medical and musical equipment. The miscellaneous sector includes the plastic components of such items as toys, sporting goods, outdoor signs, and architectural structures (e.g., doors, floors,</p>				File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		and window frames). The plastic parts used in all these sectors have similar coating				
	2. See automobile coating.					
Ships						
	1. ACT Document: Surface Coating Operations at Shipbuilding and Ship Repair Facilities (EPA-453/R-94-032, 4/94, NTIS PB-94-181-864). The ACT was superceded by the Shipbuilding CTG issued in 1996.	1. This report provides alternative control techniques (ACT) for State and local agencies to consider for incorporating in rules to limit emission of volatile organic compounds (VOC's) and particulate matter including PM10 (that which measures 10 microns or less) that otherwise would result from surface coating operations at shipbuilding and ship repair facilities. Eight models were developed to represent the various types of shipyards that could be covered by the ACT. The relative size of the yard and whether it does new ship construction or repair were the bases for categorization	1106 Marine Coating Operations	Adopted 11/4/1988, Rescinded 1/20/98	40 CFR 52.220(c)(215)(i)(A)(6) - 01/13/99 64 FR 2141	FND Filed - Update

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		<p>resulting in: (1) large/construction; (2) large/repair; (3) medium/construction; (4) medium/repair; (5) small/construction; (6) small/repair; (7) extra small/construction; and (8) extra small repair. Size is characterized by annual volume of paint and solvent usage, which affects annual VOC emission levels (Mg/yr). (Note: Only 1 antifoulant limit of 400- no substrate indicated. Our new rule breaks down to aluminum/other substrate.</p>				
	<p>2. CTG, see 61 FR 44050, 8/27/96.</p>	<p>2. SUMMARY: The CTG for control of volatile organic compound (VOC) emissions from surface coating operations in the shipbuilding and ship repair industry is available to assist States in analyzing and determining reasonably available control technology (RACT) for shipbuilding and ship repair operations located within ozone national ambient air quality standards (NAAQS) non-attainment areas. The CTG also sets forth the adoption and implementation dates for RACT. The CTG for Shipbuilding and Ship Repair Operations (Surface Coating) is</p>		<p>Adopted 5/1/1992, Amended 3/8/1996</p>	<p>4/13/95 60 FR18750, 40 CFR 51.220(c)(189)(I)(A)(6)</p>	<p>No Further Action Required</p>

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
		not being issued as a stand-alone document. Rather, it is a combination of the information contained in this notice and in the EPA's previously published alternative control techniques (ACT) document for this emission source category.				
		EFFECTIVE DATE: Any State that has not adopted an approvable RACT regulation for the source category addressed by this CTG must submit a RACT regulation for these sources within one year from the date of publication of this action in the Federal Register. For any State that has adopted an approvable RACT regulation for the source category addressed by this CTG, Section 182(b)(2) of the Clean Air Act (CAA) requires these States to submit a revision to the applicable implementation plan, to include provisions that require the implementation of RACT. This revision shall be submitted to the EPA not later than August 27, 1997. Furthermore, all States must require sources to implement the required limitations and work practices under these adopted RACT regulations not later than August 27, 1998.				

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Solvent Cleaning</b>						
	1. Control of Volatile Organic Emissions from Solvent Metal Cleaning, (EPA-450/2-77-022, 11/77, NTIS PB-274-557), CTG.	Applies to cold cleaners, open top vapor degreasers, and conveyonized degreasers, which use volatile solvent to clean metal parts.	1171 Solvent Cleaning Operations	Adopted 08/02/91, Amended 11/17/98	40 CFR 52.220(c)(262)(l)(e)(2) - 05/24/01 66 FR 28666	Exceeds Beyond RACT doc
	2. ACT Document: Halogenated Solvent Cleaners (EPA-450/3-89-030, 8/89, NTIS PB-90-103-268).	Applies to cleaning machines that use halogenated solvents.	No district rule - MACT standard applies which meets or exceeds RACT		ATCM applies H&S 39658(b) and 39666(d).	No Action Required
	3. ACT Document; Industrial Cleaning Solvents (EPA-453/R-94-015, 2/94, NTIS PB-94-156-79).	Applies to industrial cleaning with organic solvents.	1171 Solvent Cleaning Operations	Adopted 08/02/91, Amended 11/17/98	40 CFR 52.220(c)(262)(l)(e)(2) - 05/24/01 66 FR 28666	Exceeds Beyond RACT doc
<b>Traffic Markings</b>						
	Reduction of VOC Emissions from the Application of Traffic Markings (EPA-450/3-88-007, 8/88, NTIS PB-89-148-274), ACT.	Applies to the application of highway traffic markings	1113 Architectural Coatings	Adopted 09/02/77 Amended 03/18/03	LA/LD 40 CFR 52.220(c)(316)(l)(F)(1) - 08/26/04 69 FR 52432 LA/LD applied to averaging provisions only. Provisions sunset by their own terms 01/05. LA/LD no longer applies.	Meets RACT - No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Wood Coatings</b>						
	Control of Volatile Organic Emissions from Stationary Sources, Volume VII: Factory Surface of Flat Wood Paneling (EPA-450/2-78-032, 6/78, NTIS PB 286-199), CTG.	Applies to interior paneling made of wood.	1104 Wood Flat Stock Coating Operations	Adopted 4/7/1978, Amended 08/02/91	6/23/94, FR 23255, 40 CFR 52.220(c)(186)(i)(C)	Exceeds Beyond RACT doc - possible FND
<b>Wood Furniture</b>						
	1. Control of VOC Emissions from Wood Furniture Manufacturing Operations CTG-MACT draft MACT 5-94; Final CTG (EPA-453/R-96-007, 4/96, NTIS PB-96-178-769). Also see 61 FR 25223 and 61 FR 50823, 9/27/96.	Applies to any facility that finishes wood furniture or performs cleaning or wash-off associated with wood furniture finishing operations.	1136 Wood Products Coating	Adopted 9/16/83 Amended 06/14/96	Approved 10/31/95, 60 FR 55312, 40 CFR 52.220(c)(225)(i)(A)(1)	File FND
	2. Control Techniques for Organic Emissions from Plywood Veneer Dryers (EPA-450/3-83-012, 5/83). This document is labeled as a Control Technique Document (CTD) rather than an ACT. The information is similar to that in an ACT.	Applies to softwood plywood manufacturing operations.				File FND

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<b>Petroleum</b>						
<b>Gasoline Plants</b>						
	Control of Volatile Organic Emissions from Bulk Gasoline Plants (EPA-450/2-77-035, 12/77, NTIS PB-276-722), CTG.	Applies to bulk plants with daily throughputs of 20,077 gal or less				Exceeds Beyond RACT doc - FILE FND
<b>Natural Gas/Gasoline</b>						
	Control of VOC Equipment Leaks from Natural Gas/Gasoline Processing Plants (EPA-450/2-83-007, 12/83, NTIS PB-84-161-520), CTG.	Applies to facilities engaged in the separation of natural gas liquids from field gas and/or fraction of the liquids into natural gas products. Does not apply to compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units and field gas gathering systems unless they are located at a gas processing plant.				Exceeds Beyond RACT doc as "Misc Refinery Sources" - FILE FND
<b>Refineries</b>						
	1. Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 10/77, NTIS PB-275-62),CTG	Applies to non-condensables from vacuum-producing systems, wastewater separators, and all pressurized process units.	1123 Refinery Process Turnabouts	Adopted 5/4/1979, Rescinded 11/18/97	40 CFR 52.220(c)(184)(l)(B)(9) - 05/17/00 65 FR 31267	Exceeds Beyond RACT doc as "Misc Refinery Sources" - FILED FND - UPDATE

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. Control of VOC Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 6/78, NTIS PB-286-158),					Beyond RACT category with no SC Rule File FND
	3. Petroleum Refinery Tier 2 BACT Analysis Report (Eastern Research Group for EPA, 1/16/01).					File FND
	4. ACT Document-Organic Waste Process Vents (EPA-450/3-91-007, 12/90, NTIS PB-91-148270).	Applies to process vents on waste management units treating organic containing wastes exempted from RCRA process vent standards.				File FND
	5. Control Technology Center Document-Industrial Wastewater Volatile Organic Compound Emissions-Background Information for BACT/LAER Determinations (EPA-450/3-90-004, NTIS PB-90-194754).	Applies to industrial wastewaters generated by Organic Chemicals Manufacturing Industry, Plastics and Synthetic Fibers Manufacturing Industry, Pesticide Manufacturing Industry, Pharmaceuticals Manufacturing Industry, and the Hazardous Waste Treatment, Storage and Disposal Facilities Industry.				No action required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Service Stations</b>						
	1. Design Criteria for Stage I Vapor Control Systems-Gasoline Service Stations (11/75), CTG.	Applies to filling of gasoline storage tanks from gasoline tanker trucks.	461 Gasoline Transfer and Dispensing	Adopted 01/09/76, Amended 09/15/98	Disapproved 6/21/01, 66 FR 33177, 40 CFR 52.269(b)(3)(ii)(a) Prior version dated 1/3/96 retained; Approved 10/7/96 61 FR 52297	Meets/Exceeds Beyond RACT doc - no further action required
	2. Technical Guidance-Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities (EPA-450/3-91-022a & b, 11/91).	Applies to gasoline dispensing into motor vehicles at gasoline dispensing stations.	461 Gasoline Transfer and Dispensing	Adopted 01/09/76, Amended 09/15/98	Disapproved 6/21/01, 66 FR 33177, 40 CFR 52.269(b)(3)(ii)(a) Prior version dated 1/3/96 retained; Approved 10/7/96 61 FR 52297	Meets/Exceeds Beyond RACT doc - no further action required
	3. Guidelines-Gasoline Vapor Recovery-Minimum SIP Requirements for EPA Region IX to Approve a Phase I or Phase II Gasoline Transfer Rule for Ozone Non-attainment Areas (EPA Region IX, 4/00).	<p>Applicability [To meet the requirements of RACT]:</p> <ul style="list-style-type: none"> <li>• Generally, exemptions may be allowed for special applications, such as fueling aircraft, marine vessels, or animal husbandry equipment.</li> <li>• Exemptions should not be allowed for Phase I transfer into tanks larger than 250 gallons, unless constructed before 1980.</li> <li>• Exemptions should not be allowed for Phase II transfer with a throughput of greater than 10,000 gallons per month</li> <li>• Exemptions should not be allowed for Phase II transfer into tanks larger than five gallons.</li> </ul>				Meets/Exceeds Beyond RACT doc - no further action required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Synthetic Organic Chemical</b>						
	1. Control of VOC Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (EPA-450/3-84-015, 12/84, NTIS PB-85-164-275), CTG.	Applies to air oxidation processes used in the synthetic organic chemical manufacturing industry.				Beyond RACT category with no SC Rule - FILE FND
	2. Control of VOC Emissions from Reactor Processes and Distillation Operations in SOCM I (EPA-450/4-91-031, 11/15/93, NTIS PB-92-180-009), CTG.					Beyond RACT category with no SC Rule - FILE FND
<b>Tanks</b>						
	1. Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks (EPA-450/2-77-036, 12/77, NTIS PB-276-749), CTG.	Applies to storage tanks having capacities greater than 150,000 liters containing petroleum liquids with a true vapor pressure greater than 10.5 Kpa. Exempts fixed roof tanks having capacities less than 1.6 million liters used to store produced crude or condensate prior to lease custody transfer.				Exceeds Beyond RACT doc - No further action required
	2. Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks (EPA-450-2/78-047, 12/78, NTIS PB-290-579), CTG.	Applies to external floating roof tanks larger than 40,000 gal storing petroleum liquids.				Exceeds Beyond RACT doc - No further action required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	3. Volatile Organic Liquids Storage in Floating and Fixed Roof Tanks (EPA-453/R-94-001, 2/94, NTIS PB-94-152-741), ACT.	Applies to storage tanks in all industries, but primarily in the petroleum refineries, pipelines, chemical plants, and liquid terminals.				Exceeds Beyond RACT doc - No further action required
<b>Tank Trucks</b>						
	1. Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals (EPA-450/2-77-026, 12/77, NTIS PB-275-060), CTG.	Applies to tank truck terminals with daily throughputs greater than 76,000 liters.				Exceeds Beyond RACT doc - File FND
	2. Control of VOC Leaks from Gasoline Tank Trucks and Vapor Collection Systems (EPA-450/2-78-051, 12/78, NTIS PB-290-568), CTG.	Applies to gasoline tank trucks that are equipped with vapor collection systems and the vapor collection systems at bulk terminals, bulk plants and service stations.	461 Gasoline Transfer and Dispensing	Adopted 01/09/76, Amended 09/15/98	Disapproved 6/21/01, 66 FR 33177, 40 CFR 52.269(b)(3)(ii)(a) Prior version dated 1/3/96 retained; Approved 10/7/96 61 FR 52297	Meets/Exceeds Beyond RACT doc - No further action required
<b>Combustion</b>						
<b>Boilers, Steam Generators, Process Heaters</b>						
	1. ACT Document-NOx Emissions from Process Heaters (Revised) (EPA-453/R-93-034, 9/93).	Applies to process heaters which are direct fired heaters used primarily in the petroleum refining and petrochemical industries.	1109 – Emissions of Oxides Of Nitrogen From Boilers And Process Heaters In Petroleum Refineries	Adopted 3/12/1984, Rescinded 4/21/98	40 CFR 52.222(c)(179)(i)(H)(1) - 1/24/00 65 FR 2052	Filed FND - UPDATE
	2. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94).	Applies to fossil fuel-fired utility boilers.	1135 – Emissions Of Oxides Of Nitrogen From Electrical Power Generating Systems	Adopted 8/4/1989, Amended 7/19/91	Approved for SCAQMD area only on 8/11/98, 63 FR 42728.	File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	3. ACT Document-NOx Emissions from Industrial/Commercial/Institutional (ICI) Boilers (EPA-453/R-94-022, 3/94).	Applies to ICI boilers, which include steam and hot water generators with heat input capacities from 0.4 to 1,500 MMBtu/hr (0.11 to 440 MWt). These boilers are used in a variety of applications, ranging from commercial space heating to process steam generation, in all major industrial sectors. Although coal, oil, and natural gas are the primary fuels, many ICI boilers also burn a variety of industrial, municipal, and agricultural waste fuels.	<b>1146</b> – Emissions Of Oxides Of Nitrogen From Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters	Adopted 5/13/1994, Amended 5/13/1994	Approved 9/6/95, 60 FR 46220, 40 CFR 52.220(c)(198)(I)(H)(1).	No Further Action Required
			<b>1146.1</b> – Emissions Of Oxides Of Nitrogen From Small Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters	Adopted 10/5/1990, Amended 5/13/94	Approved 9/6/95, 60 FR 46220, 40 CFR 52.220(c)(198)(I)(H)(1).	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Cement Kilns</b>						
	ACT Document-NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 3/94). Updated September 2000.	Cement kilns have been identified as a stationary source that emit more than 25 tons of nitrogen oxides (NOx) per year. This alternative control technique (ACT) document provides technical information for use by State and local agencies to develop and implement regulatory programs to control NOx emissions from cement kilns.	1112 Emissions of Oxides of Nitrogen from Cement Kilns	Adopted 1/8/1982, Rescinded 3/16/99	FND Approved 5/17/00	Filed FND - UPDATE
<b>Gas Turbines</b>						
	ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93).	Applies to stationary gas turbines used in various applications and operations.	1134 Emissions of Oxides of Nitrogen From Stationary Gas Turbines	Adopted 08/04/89, Amended 04/11/97	SIP pending. 40 CFR 52.220(c)(230)(i)(B)(1)]	No Action Required
<b>Glass Furnaces</b>						
	ACT Document-NOx Emissions from Glass Manufacturing (EPA-453/R-94-037, 6/94).	This alternative control technique (ACT) document provides technical information for use by State and local agencies to develop and implement regulatory programs to control NO emissions from glass melting furnaces.	1117 – Emissions Of Oxides Of Nitrogen From Glass Melting Furnaces	Rescinded 3/16/99	40 CFR 52.220(C)(159)(V)(E) 05/17/00 65 FR 31267	File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Internal Combustion Engines</b>						
	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).	Applies to stationary reciprocating internal combustion engines.	1110 - Emissions from Stationary Internal Combustion Engines (Demonstration)	Adopted 11/06/81	Approved 5/3/84, 49 FR 18822, 40 CFR 52.220(c)(121)(i)(C)	Update rule to meet current RACT
			1110.1 - Emissions from Stationary Internal Combustion Engines	Rescinded 11/16/99		No Action Required
			1110.2 - Emissions from Stationary, Non-road & Portable Internal Combustion Engines	Amended 5/15/01	Submitted as amended on 5/15/01 on 4/1/03 - No approvals shown	Update rule to meet current RACT
<b>Iron &amp; Steel</b>						
	NOx Emissions from Iron and Steel Mills (EPA-453/R-94-065, 9/94).	Applies to iron and steel manufacturing.				File FND
<b>Municipal Waste Combustion</b>						
	1. 40 CFR subpart Cb-Emission Guidelines and Compliance Schedules for Municipal Waste Combustors.					File FND
	2. 40 CFR 62 subpart FFF, Federal Plan for Existing Large MWC Units.					File FND
<b>NOx Rules</b>						
	1. Summary of State NOx Rules, 9/29/95.		429 Start-up and Shutdown Exemption Provisions for Oxides of Nitrogen	Adopted 05/05/89, Amended 12/21/90	Disapproved for SCAQMD 01/27/00 65 FR 4357, 40 CFR 52.271(c)(1)(i)	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. Cost Effective NOx RACT, 3/16/94.		474 Fuel Burning Equipment	Adopted 05/07/76, Amended 11/26/96	SIP pending, 40 CFR 52.220(c)(121)(i)(A)	No Further Action Required
	3. De Minimis Values for NOx RACT, 1/1/95.		1110 Emissions from Stationary Internal Combustion Engines (Demonstration)	Adopted 11/06/81	Approved 5/3/84, 49 FR 18822, 40 CFR 52.220(c)(121)(i)(C)	Update rule to meet current RACT
	4. Scope of NOx Exemptions RACT, 1/12/95.		1110.2 Emissions from Stationary, Non-road & Portable Internal Combustion Engines	Adopted 08/03/90, Amended 01/21/03	Submitted as amended 5/15/01, 4/1/03 - No approvals shown	Update rule to meet current RACT
	5. Fuel Switching to NOx RACT, 7/30/93.		1111 NOx Emissions from Natural Gas Fired, Fan Type Central Furnaces	Adopted 12/01/78, Amended 07/08/83	Approved 5/3/84, 49 FR 18830, 40 CFR 52.220(c)(148)(vi)(A)	No Further Action Required
	6. Section 182(f) NOx Exemptions Revised Process and Criteria, 2/8/95.		1121 Control of Nitrogen Oxides from Residential-type, Natural Gas Fired Water Heaters	Adopted 12/01/78, Amended 03/10/95	Approved 11/1/96, 61 FR 56470, 40 CFR 52.220(c)(220)(i)(C)(1)	No Further Action Required
	7. NOx Questions from Ohio EPA, 1993.		1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines	Adopted 08/04/89, Amended 04/11/97	SIP PENDING 40 CFR 52.220(c)(230)(i)(B)(1)	No Further Action Required
	8. NOx RACT for Repowering of Utility Boilers, 3/9/94.		1135 Emissions of Oxides of Nitrogen from Electric Power Generating Systems	Adopted 8/4/89, Amended 7/19/91	Not SIP, 63 FR 42728 Specifically excludes AV	No Further Action Required
	9. NOx Exemptions Revised and Process Criteria, 5/27/94.		1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and	Adopted 5/13/94	40 CFR 52.220(c)(198)(i)(H)(1) - 9/6/95 60 FR 46220	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
			Process Heaters			
	10. NOx Policy Documents for the CAA of 1990.		1146.1 Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators and Process Heaters	Adopted 10/05/90, Amended 05/13/94	Approved 9/6/95, 60 FR 46220, 40 CFR 52.220(c)(198)(i)(H)(1)	No Further Action Required
<b>PM</b>						
<b>Generic PM</b>						
	PM10 Guideline Document (EPA-452/R-93-008, 4/93).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
		Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Open Burning</b>						
	Guidelines-Open Burning Rule Exemption (EPA Region IX, 10/18/02).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Residential Wood Combustion</b>						
	1. Technical Information Document for Residential Wood Combustion (EPA-450/2-92-002, 9/92).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. Guidelines-Minimum BACM/RACM for Residential Wood Combustion (EPA Region IX, 10/25/02.	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
	3. Available Residential Wood Combustion Control Measures (57 FR 18072, 4/28/92), RACT.	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Prescribed Burning</b>						
	Prescribed Burning Control Measures (57 FR 18072, 4/28/92), RACT.	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Fugitive Dust</b>						
	Available Fugitive Dust Control Measures (57 FR 18072, 4/28/92), RACT.	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
		Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Opacity</b>						
	Final Disapproval of ADEQ Rule R18-2-702 for BACM/RACT Analysis (Docket AZ-02-60F). (67 FR 59456, 9/23/02).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>De Minimis Analysis</b>						
	1. 59 FR 42011 (8/16/94).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. 40 CFR 51.165(b)(1).	Not applicable to 8 hour ozone RACT SIP analysis				No Further Action Required
<b>Other</b>						
<b>Cutback Asphalt</b>						
	Control of VOC from Use of Cutback Asphalt (EPA-450/2-77-037, NTIS PB 278-185), CTG.	Applies to VOC from use of cutback asphalt.	1108 – Cutback Asphalt	Adopted 5/4/1979, Amended 2/1/85	7/12/90, 55 FR 28624, 40 CFR 52.220(c)(160)(I)(E)(1)	Exceeds Beyond RACT doc - No further action required
<b>Bakeries</b>						
	1. ACT Document-Bakery Oven Emissions (EPA-453/R-92-017, 12/92).	Applies to commercial bakery ovens that are used to produce bread or similar yeast leavened products - does not apply to bakers that make non-yeast leavened products.	1153 – Commercial Bakery Ovens	Adopted 1/4/1991, Amended 1/13/95	8/8/95, 60 FR 40286, 40 CFR 52.220(c)(215)(i)(A)(2)	File FND
	2. Issues Concerning Bakery RACT Requirements (2/8/95).	Allows states to make certain exemptions and to establish alternative RACT procedures in their regulations of commercial bakery ovens				No Further Action Required
<b>Dry Cleaning</b>						
	Control of VOC Emissions from Large Petroleum Dry Cleaners (EPA-450/3-82-009, 9/82, NTIS PB-83-124-875), CTG.	Applies to petroleum solvent dry cleaning facilities that consume 123,000 liters or more of petroleum solvent per year.	1102 – Petroleum Solvent Dry Cleaners	Adopted 1/6/1978, Amended 12/7/90	3/24/92, 57 FR 10136, 40 CFR 52.220(c)(184)(I)(B)(1)	Exceeds Beyond RACT doc - No further action required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	1. Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems (EPA-450/2-78-050, 12/78, NTIS PB-290-613).	CTG no longer relevant as PERC is exempted as a VOC- however there is a MACT standard for PERC Dry Cleaning (NESHAPS Perchloroethylene Dry Cleaning Facilities)		09/22/03	58 FR 49354	No Further Action Required
<b>Ethylene Oxide</b>						
	ACT Document-Ethylene Oxide Sterilization/Fumigation Operations (EPA-450/3-89-007, 3/89, NTIS PB-90-131-434).	Applies to ethylene oxide used as a sterilizer/fumigant in production of medical equipment supplies, in miscellaneous sterilization and fumigation operations and at hospitals.	1405 Control Of Ethylene Oxide And Chlorofluorocarbon Emissions From Sterilization Or Fumigation Processes	Rescinded 11/20/01		File FND
<b>Fertilizer</b>						
	Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants (EPA-450/2-77-005, 3/77).					File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Ink &amp; Paint Manufacture</b>						
	Control of VOC Emissions from Ink and Paint Manufacturing Processes (EPA-450/3-92-013, 4/92)	Applies to products of the paint manufacturing industry including architectural coatings, product coating for original equipment manufacturers and special purpose coatings. Also applies to ink manufacturing including letterpress inks, lithographic and offset inks, gravure inks and flexographic inks.	1141.1 Coating And Ink Manufacture	Adopted 11/4/1983, Amended 3/6/92	Approved 05/04/99 64 FR 23774, 40 CFR 52.220(c)(189)(i)(A)(7)	File FND
<b>Leather Tanning</b>						
	Air Emissions and Control Technology for Leather Tanning and Finishing Operations (EPA-453/R-93-025, 6/93).	Applies to leather finishing operations.				File FND
<b>Nitric &amp; Adipic Acid</b>						
	ACT Document-Nitric and Adipic Acid Manufacturing Plants (EPA-450/3-91-026, 12/91).	Applies to nitric and adipic acid manufacturing facilities.	1159 – Nitric Acid Units - Oxides Of Nitrogen	Rescinded 1/18/2000, FND	40 CFR 52.220(b)(4)(iii) - 11/03/00 65 FR 66175.	Filed FND - UPDATE
<b>Pesticides</b>						
	Control of VOC Emissions from the Application of Agricultural Pesticides (EPA-453/R-92-011, 3/93, NTIS PB-93-199-131), ACT.	Applies to pesticides use for agricultural purpose. Regulated by California State DPR.			3 CCR 12824	No Further Action Required

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
<b>Pharmaceutical Products</b>						
	Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products (EPA-450/2-78-029, 12/78, NTIS PB-290-580), CTG.	Applies to existing plants synthesizing pharmaceutical products.	1103 – Pharmaceuticals And Cosmetics Manufacturing Operations	Rescinded 1/18/00	40 CFR 52.220(c)(69)(v) - 11/03/00 65 FR 66175	Filed FND - UPDATE
<b>Polyester Resin</b>						
	1. Control of VOC Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins (EPA-450/3-83-008, 11/83, NTIS PB-84-134-600), CTG.	Applies to the manufacturing of high density polyethylene, polypropylene and polystyrene	No sources, which manufacture resins. Neg Dec.			File FND
	2. Control of VOC Fugitive Emissions from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment (EPA-450/3-83-006, 3/84, NTIS PB-84-189-372), CTG.	Applies to emissions from equipment used in synthetic organic chemical polymers and resins	1141 – Control Of Volatile Organic Compound Emissions From Resin Manufacturing	Adopted 7/8/1993, Rescinded 3/17/04	40 CFR 52.220(c)(189)(i)(A)(8) - 9/21/04 69 FR 56355.	Filed FND - UPDATE
	3. Control of VOC Emissions from Manufacture of Styrene-Butadiene Copolymers- Preliminary Draft CTG, 4/81.					File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	4. Polystyrene Foam Manufacturing (EPA-450/3-90-020, NTIS PB-91-102111).	Applies to polystyrene foam manufacturing.				File FND
<b>Rubber Tires</b>						
	Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 12/78, NTIS PB-290-557), CTG.	Applies to manufacturing process, under tread cementing, tread end cementing, bead dripping and green tire spraying				Beyond RACT category with no SC Rule - File FND
<b>Sulfuric Acid</b>						
	Control of Sulfuric Acid Mist Emissions from Existing Sulfuric Acid Production Units (EPA-450/2-77-019, 9/77).	Applies to existing contact sulfuric acid manufacturing units.				File FND
<b>Wastewater</b>						
	1. Control of VOC Emissions from Industrial Wastewater CTG Draft (EPA-453/D-93-056, 9/92).	Applies to emissions from the collection and treatment of industrial wastewater from the organic chemicals, plastics and synthetic fibers industry, the pesticides manufacturing industry and the hazardous waste treatment, storage and disposal facilities industry.				File FND

CTG Source Category	CTGs and ACTs/Other documents to help establish RACT at Major Sources	Applicability	District Rule and Title	Date Adopted, Date Last Amended	Federal Register Rule Approval	Proposed District Action
	2. ACT Document: Air Emissions from Industrial Wastewater (4/94). ACT consists of cover memo with option tables and CTG draft.					File FND