

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

August 2006

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# Table of Contents

<i>Abbreviations and Acronyms</i> .....	<i>ii</i>
<b>Executive Summary</b> .....	<b>1</b>
<b>CHAPTER 1 - Introduction and Background</b> .....	<b>3</b>
Introduction.....	5
<i>Purpose</i> .....	5
Background.....	5
<i>Regulatory History</i> .....	5
<i>Federal Legal Requirements</i> .....	5
<i>Pollutant Description and Health Effects</i> .....	5
<i>Setting</i> .....	6
<b>CHAPTER 2 – RACT SIP Evaluation</b> .....	<b>7</b>
<i>Process</i> .....	9
<i>CTG Sources</i> .....	9
<i>Major Non-CTG Sources</i> .....	9
<b>CHAPTER 3 – MDAQMD RACT Actions</b> .....	<b>15</b>
<i>Federal Negative Declarations</i> .....	17
<i>Required RACT Actions</i> .....	21
<i>Proposed Rule Adoption Schedule</i> .....	22
<b>Appendices</b> .....	<b>23</b>
Appendix A - RACT Evaluation Table .....	A-1

## Abbreviations and Acronyms

ACT.....	Alternative Control Technology
AQMA .....	Air Quality Management Area
BACT .....	Best Available Control Technology
CARB.....	California Air Resources Board
CTG.....	Control Techniques Guideline
FCAA.....	Federal Clean Air Act
FND.....	Federal Negative Declaration
FONA.....	Federal Ozone Non-attainment Area
MDAQMD .....	Mojave Desert Air Quality Management District
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
SBCAPCD .....	San Bernardino County Air Pollution Control District
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 Mojave Desert Air Quality Management District (MDAQMD) 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 several rules that must be updated to current RACT standards, and several sources that require RACT rules to be adopted.

This document presents the evaluation method, the evaluation results, and the MDAQMD's commitment to adopt the required RACT rules (or 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 MDAQMD; (2) reviews all MDAQMD major sources for RACT applicability; and (3) identifies any actions the MDAQMD 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 a portion of the southwestern desert part of San Bernardino County as non-attainment of the eight-hour ozone NAAQS as part of the Southeast Desert Modified 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 MDAQMD was established on July 1, 1993, pursuant to H&SC §41200 et seq. (Statutes 1992 ch. 642). The MDAQMD was a successor agency to the San Bernardino County Air Pollution Control District (SBCAPCD), which had jurisdiction over the desert portions of San Bernardino County commencing in February 1977 through the formation of the MDAQMD. The Palo Verde Valley portion of eastern Riverside County was annexed by the MDAQMD from the South Coast Air Quality Management District (SCAQMD) effective July 1, 1994, pursuant to provisions of H&SC 41210(c) and MDAQMD Resolution 94-03.

Ozone plans have been adopted by the MDAQMD 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 MDAQMD includes the desert portion of San Bernardino County and a portion of eastern Riverside County commonly known as the Palo Verde Valley. A portion of the MDAQMD has been designated non-attainment for the eight-hour ozone NAAQS by USEPA as a portion of the Southeast Desert Modified AQMA (herein referred to as the Federal Ozone Non-attainment Area (FONA)). The Southeast Desert Modified AQMA was defined using the Los Angeles-Anaheim-Riverside Consolidated Metropolitan Statistical Area, and includes a portion of the counties of Los Angeles, Riverside and San Bernardino (40 CFR 81.167). The FONA includes the communities of Phelan, Hesperia, Adelanto, Victorville, Apple Valley, Barstow, Joshua Tree, Yucca Valley and Twentynine Palms (the southwestern portion of the MDAQMD).

The MDAQMD covers more than 20,000 square miles and included 359,551 persons as of the 1990 census (approximately 445,000 in 2002). The region is characterized by hot, dry summers and cool winters, with little precipitation. The National Training Center at Fort Irwin, the Marine Corps Air Ground Combat Center, and portions of Edwards Air Force Base and the China Lake Naval Air Weapons Station are in the MDAQMD. The MDAQMD also includes the Mojave National Preserve and portions of Death Valley National Park and Joshua Tree National Park.

The primary roadways in the MDAQMD are Interstate 15, Interstate 40 and Interstate 395. All of these highways carry a significant amount of transiting heavy-duty truck traffic, and Interstate 15 carries a substantial amount of commuter traffic into the greater Los Angeles Basin.

The MDAQMD is a growing bedroom community, but does have significant mining and military activity.

## **CHAPTER 2 – RACT SIP Evaluation**

Process

CTG Sources

Major Non-CTG Sources

Future Years

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## Process

The MDAQMD reviewed a USEPA-provided list of source categories and applicable CTGs and Alternative Control Technology (ACTs) that collectively define RACT. The MDAQMD 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 MDAQMD 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 MDAQMD has no source that meets the category, the MDAQMD will file a Federal Negative Declaration (FND) for that category. For some categories the MDAQMD has an adopted rule that applies to the category that has been deemed to meet the applicable RACT for that category. In a few cases the MDAQMD has no rule and either has or believes it likely that a source may site in the MDAQMD, and the MDAQMD is accordingly committing to adopting a RACT rule for the source category. Chapter 3 details MDAQMD actions identified by this evaluation process.

## Major Non-CTG Sources

RACT is also required for all major sources of ozone precursors within the FONA. Table 1 below presents a list of all facilities with Title V Federal Operating Permits within the MDAQMD (with the sources in the FONA identified), whether the facility is a major source of ozone precursors, and the current RACT applicable to those sources. In a few cases the MDAQMD has no rule requiring RACT for a major source and the MDAQMD is accordingly committing to adopt a RACT rule for the source. Chapter 3 details MDAQMD actions identified by this evaluation process.

**Table 1 - Major Source Table**

<b>FONA</b>	<b>Source</b>	<b>FOP</b>	<b>Description</b>	<b>Applicable RACT</b>
Y	AFG Industries, Inc.	27000935	Flat glass furnace, gas-fired	ACT Document-NOx Emissions from Glass Manufacturing (EPA-453/R-94-037, 6/94).

<b>FONA</b>	<b>Source</b>	<b>FOP</b>	<b>Description</b>	<b>Applicable RACT</b>
Y	C & M Wood Industries, Inc.	35401020	Wood coating	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. 2. 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. 3. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Y	Cabo Yachts, Inc.	52601196	Pleasure Craft Manufacturing	Control Techniques Guidelines for Shipbuilding and Ship Repair Operations, 61 FR 44050
Y	CALNEV Pipe Line, Barstow Terminal	200353	Refined petroleum product storage and bulk dispensing	1. Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals (EPA-450/2-77-026, 12/77, NTIS PB-275-060), CTG. 2. Control of Volatile Organic Emissions from Bulk Gasoline Plants (EPA-450/2-77-035, 12/77, NTIS PB-276-722), CTG.
Y	CEMEX, River Plant & Black Mountain Quarry Plant	100005	Portland Cement Manufacturing	ACT Document-NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 3/94).
Y	City Barstow Wastewater	9600500	Publicly owned wastewater treatment plant	Not a major source of ozone precursors
Y	Continental Fiberglass (formerly Hawaiian Fiberglass Pools, Inc.)	50901668	Composite fiberglass construction and coating	Not a major source of ozone precursors
Y	Ducommun Aerostructures	5400246	Aerospace manufacturing (chemical milling and related coating)	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).
Y	Duffy Electric Boat Company	121502114	Pleasure Craft Manufacturing	Not a major source of ozone precursors
Y	High Desert Power Project	104701849	Two on one combined cycle gas turbine power trains	1. ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).

<b>FONA</b>	<b>Source</b>	<b>FOP</b>	<b>Description</b>	<b>Applicable RACT</b>
Y	KF-Fiberglass, Inc.	132602297	Composite fiberglass construction and coating	Not a major source of ozone precursors
Y	LUZ SOLAR PARTNERS III - VII	27700941	Solar thermal electricity generating facility with gas-fired boiler	1. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Y	LUZ Solar Partners, Harper Lake facility - SEGS VIII/IX	60300975	Solar thermal electricity generating facility with gas-fired boiler	1. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Y	Mitsubishi Cement Corporation	11800001	Portland Cement Manufacturing	ACT Document-NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 3/94).
Y	Mobile Pipe Wrappers and Coaters Inc.	3971067	Construction pipe coating	Not a major source of ozone precursors
Y	Molded Fiber Glass Companies West	42701095	Composite fiberglass construction and coating	No Applicable RACT
Y	Molded Fiber Glass Companies West (formerly May Manufacturing/Artesian Spas)	86001617	Composite fiberglass construction and coating	Not a major source of ozone precursors
Y	Northwest Pipe Company	44501112	Construction pipe coating	Not a major source of ozone precursors
Y	Pacific Gas & Electric - Hinkley	1500535	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
Y	Reliant Energy - Coolwater Generating Station	6900004	Two two-on-one combined cycle turbine power trains and two boilers, all gaseous and liquid fired	1. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258). 3. ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93).
Y	Riverside Cement Co. [TXI]	1200003	Portland Cement Manufacturing	ACT Document-NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 3/94).

<b>FONA</b>	<b>Source</b>	<b>FOP</b>	<b>Description</b>	<b>Applicable RACT</b>
<b>Y</b>	San Bernardino County Solid Waste Management - Victorville Sanitary Landfill	102102443	Municipal landfill with landfill gas control system	Not a major source of ozone precursors
<b>Y</b>	Southern California Gas Company - Adelanto	3100066	Gas turbine compressing natural gas transmission pipeline	1. ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
<b>Y</b>	Southern California Gas Company - Newberry Springs	3100065	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>Y</b>	Specialty Minerals, Inc.	62900261	Limestone quarrying, crushing and screening	Not a major source of ozone precursors
<b>Y</b>	Unlimited Performance Products	121902118	Composite fiberglass construction and coating	Not a major source of ozone precursors
<b>Y</b>	USAF - Edwards AFB	8300565	Solid and liquid fueled rocket test stands	No Applicable RACT
<b>Y</b>	USMC - MCLB Barstow Yermo Annex	8700587	Military coating (all coating types)	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).
<b>N</b>	ACE Cogeneration Company	50001051	Solid-fueled cogeneration boiler	1. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
<b>N</b>	Blythe Energy, LLC	130202262	Three on one combined cycle gas turbine power trains	1. ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
<b>N</b>	Molycorp, Inc. - Mountain Pass Operations	500364	Rare earth quarrying, crushing, screening, roasting and refining	No Applicable RACT
<b>N</b>	NASA Goldstone DSCC	13300611	Liquid-fueled internal combustion engines conditioning power for radio communication	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).

<b>FONA</b>	<b>Source</b>	<b>FOP</b>	<b>Description</b>	<b>Applicable RACT</b>
<b>N</b>	Pacific Gas & Electric - Topock	1500039	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>N</b>	Searles Valley Minerals Operations, Inc.	90002	Soluble mineral extraction and refining	No Applicable RACT
<b>N</b>	Southern California Gas Company - Blythe	3101437	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>N</b>	Southern California Gas Company - Kelso	3100067	Gas turbine and gas-fired internal combustion engines compressing natural gas transmission pipeline	1. ACT Document-NOx Emissions from Stationary Gas Turbines (EPA-453/R-93-007, 1/93). 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258). 3. ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>N</b>	Southern California Gas Company - North Needles	3100069	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>N</b>	Southern California Gas Company - South Needles	3100068	Gaseous-fired internal combustion engines compressing natural gas transmission pipeline	ACT Document-NOx Emissions from Stationary IC Engines (EPA-453/R-93-032, 7/93, Updated 9/2000).
<b>N</b>	USN - Naval Air Weapons Station China Lake (North and South Range)	8800567	Aerospace research and development, aerospace test stands	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).

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## **CHAPTER 3 – MDAQMD RACT Actions**

Federal Negative Declarations  
Required RACT Rule Actions

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## Federal Negative Declarations

Current MDAQMD review has identified many source categories that do not have corresponding sources (major or minor) within the jurisdiction of the MDAQMD. For these source categories the MDAQMD is filing FNDs. In some cases the FND is an update of an earlier FND. In every case the MDAQMD has reviewed source categories for applicability within Riverside County, and is extending the FND findings throughout the entire MDAQMD jurisdiction, including the Palo Verde Valley portion of Riverside County. FND actions are summarized in Table 2 below.

**Table 2 - Federal Negative Declarations**

Source Category	Action	CTG/Guidance Document Covering action
<b>New FND's</b>		
Petroleum Refining Catalytic Crackers and CO Boilers	File FND	Summary of NOx Control Technologies and their Availability and Extent of Application: 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) (EPA-450/3-92-004, 2/92)
Metallurgical Processes (Iron and Steel Manufacture)	File FND	
Nitric Acid Plants	File FND	1. ACT Document-Nitric and Adipic Acid Manufacturing Plants (EPA-450/3-91-026, 12/91). 2. Summary of NOx Control Technologies and their Availability and Extent of Application: CT for Noncombustion Industrial Processes (Nitric Acid Plants; Adipic Acid Plants; Explosives Manufacturing Plants) (EPA-450/3-92-004, 2/92)
Adipic Acid Plants	File FND	
Explosives Manufacturing	File FND	
Coal Preparation Plants	File FND	Control Techniques for Nitrogen Oxides Emissions from Stationary Sources-Second Edition (EPA-450/1-78-001, 1/78)
Pneumatic Rubber Tire Manufacturing	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.
Large Petroleum Dry Cleaners	File FND	Control of VOC Emissions from Large Petroleum Dry Cleaners (EPA-450/3-82-009, 9/82, NTIS PB-83-124-875), CTG.
Vegetable Oil Processing	File FND	Control Techniques for VOC Emissions from Stationary Sources: (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258)

Source Category	Action	CTG/Guidance Document Covering action
Beer and Wine Production	File FND	
Whiskey Warehousing	File FND	
Plywood Manufacture	File FND	
Plywood Veneer Dryers	File FND	1. 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. 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Manufacture of High Density Polyethylene, Polypropylene, and Polystyrene Resins	File FND	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. 2. Control Techniques for VOC Emissions from Stationary Sources (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Pneumatic Rubber Tire Manufacturing	File FND	1. Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 12/78, NTIS PB-290-557), CTG. 2. Control Techniques for VOC Emissions from Stationary Sources (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Hazardous Waste Treatment, Storage, and Disposal Facilities	File FND	Control Techniques for VOC Emissions from Stationary Sources: (Other Miscellaneous Sources) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258)
Surface Coating of Cans	File FND	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.
Surface Coating of Coils	File FND	
Surface Coating of Fabrics	File FND	
Surface Coating Operations at Automotive and Light Duty Truck Assembly Plants	File FND	
Surface Coating of Large Appliances	File FND	
Surface Coating of Magnet Wire		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.

Source Category	Action	CTG/Guidance Document Covering action
Municipal Waste Combustors and Large MWC	File FND	1. Summary of NOx Control Technologies and their Availability and Extent of Application: CT for Municipal Waste Combustors (Combustion and Post-Combustion) (EPA-450/3-92-004, 2/92). 2. 40 CFR subpart Cb- Emission Guidelines and Compliance Schedules for Municipal Waste Combustors. 3. 40 CFR 62 subpart FFF, Federal Plan for Existing Large MWC Units.
Bakery Oven Emissions	File FND	ACT Document-Bakery Oven Emissions (EPA-453/R-92-017, 12/92).
Fluoride Emissions From Existing Phosphate Fertilizer Plants	File FND	Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants (EPA-450/2-77-005, 3/77).
Leather Tanning and Finishing	File FND	Air Emissions and Control Technology for Leather Tanning and Finishing Operations (EPA-453/R-93-025, 6/93).
Sulfuric Acid Production Units	File FND	Control of Sulfuric Acid Mist Emissions from Existing Sulfuric Acid Production Units (EPA-450/2-77-019, 9/77).
Process Heaters	File FND (unless generally included in petro refinery stuff)	1. NOx Emissions from Process Heaters (Revised) (EPA-453/R-93-034, 9/93), ACT Document. 2. ACT Document-NOx Emissions from Process Heaters (Revised) (EPA-453/R-93-034, 9/93).
<b>FND's to Update</b>		
Vacuum Producing Devices or Systems	FND filed 12/29/94	1. Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 10/77, NTIS PB-275-662), CTG. 2. Control Techniques for VOC Emissions from Stationary Sources: Petroleum Refineries: Equipment Leaks, Vacuum Processing Systems, Process Unit Turnarounds, Cooling Towers, and Wastewater Systems (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Leaks From Petroleum Refinery Equipment	FND Filed 07/13/94 for SBC (No mention made if action included Palo Verde Valley portion of Riverside County)	
Process Unit Turnarounds	FND Filed 07/13/94 for SBC (No mention made if action included Palo Verde Valley portion of Riverside County)	

<b>Source Category</b>	<b>Action</b>	<b>CTG/Guidance Document Covering action</b>
Industrial Wastewater	FND Filed 08/07/95	1. Control of VOC Emissions from Industrial Wastewater CTG Draft (EPA-453/D-93-056, 9/92). 2. Control Techniques for VOC Emissions from Stationary Sources (Other Misc Sources) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Equipment Leaks From Natural Gas/Gasoline Processing Plants	FND Filed 07/13/94 for SBC	Control of VOC Equipment Leaks from Natural Gas/Gasoline Processing Plants (EPA-450/2-83-007, 12/83, NTIS PB-84-161-520), CTG.
Synthesized Pharmaceutical Products	FND Filed 08/07/95	1. Control Techniques for VOC Emissions from Stationary Sources: Industrial Manufacturing Processes (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258). 2. Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products (EPA-450/2-78-029, 12/78, NTIS PB-290-580), CTG.
Air Oxidation Processes - SOCM1	FND Filed 08/07/95	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. 2. Control Techniques for VOC Emissions from Stationary Sources (Organic Chemical Manufacture) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Polymer Manufacturing	FND Filed 08/07/95	1. Control Techniques for VOC Emissions from Stationary Sources (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258). 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.
SOCMI and Polymer Manufacturing Equipment Leaks	FND Filed 08/07/95	1. 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.
Offset Lithographic Printing	FND Filed 08/07/95	1. ACT Document: Offset Lithographic Printing (EPA-453/R-94-054, 6/94, NTIS PB-95-201-018). 2. Control Techniques for VOC Emissions from Stationary Sources (Application of Paints, Inks, and Other Coatings) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258)
Surface Coating of Automotive/Transportation and Business Machine Plastic Parts	FND Filed 08/07/95	1. Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017, 2/94), ACT Document: 2. Control Techniques for VOC Emissions from Stationary Sources: Application of Paints, Inks, and Other Coatings: Surface Coating (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).

Source Category	Action	CTG/Guidance Document Covering action
Reactor Processes and Distillation Operations in SOCMI	FND Filed 08/07/95	1. 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. 2. Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Batch Processes	FND Filed 08/07/95, 12/29/94	Control of VOC Emissions from Batch Processes (EPA-453/R-93-017 or EPA-453/R-93-020, 2/94), ACT Document.
Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment	FND Filed 08/07/95	1. 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. 2. Control Techniques for VOC Emissions from Stationary Sources (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Manufacture of Styrene-Butadiene Copolymers	FND Filed 08/07/95	1. Control of VOC Emissions from Manufacture of Styrene-Butadiene Copolymers-Preliminary Draft CTG, 4/81. 2. Control Techniques for VOC Emissions from Stationary Sources (Industrial Manufacturing Processes) (EPA-453/R-92-018, 12/92, NTIS PB-93-150-258).
Polystyrene Foam Manufacturing	FND Filed 08/07/95	Polystyrene Foam Manufacturing (EPA-450/3-90-020, NTIS PB-91-102111).

## Required RACT Actions

The MDAQMD has identified eight required RACT rule actions: a rule adoption already in process, a rule update, and four completely new rules required for existing or expected sources. These actions are detailed below.

### Ship Surface Coating

The MDAQMD has watercraft coating operations within its jurisdiction. The MDAQMD is currently adopting Rule 1106 – *Marine Coating Operations*, which will comply with current RACT for this CTG source category.<sup>1, 2</sup>

### Graphic Arts, including Paper Surface Coating and Offset Lithographic Printing

The MDAQMD has paper coating within its jurisdiction. The MDAQMD has a graphic arts RACT rule which was approved into the SIP in 1996 (61 FR 18962), but this rule does not cover all possible paper surface coating CTG source categories, such as offset lithographic printing. A RACT rule is technically required for all portions of this CTG source category.<sup>3, 4, 5, 6</sup> The MDAQMD will update Rule 1117 - *Graphic Arts* to reflect current paper surface coating RACT.

<sup>1</sup> “Control Techniques Guidelines for Shipbuilding and Ship Repair Operations,” 61 FR 44050.

<sup>2</sup> “Consumer and Commercial Products: Wood Furniture, Aerospace and Shipbuilding and Ship Repair Coatings: Control Techniques Guidelines in Lieu of Regulations,” 62 FR 44672, 8/22/97.

<sup>3</sup> “Beyond VOC RACT CTG Requirements,: EPA-453/R-95-010, 4/95. Specifically paper surface coating.

### Commercial and Residential Space Heaters

The MDAQMD has elements of this CTG source within its jurisdiction, although they are not manufactured within the MDAQMD. A RACT rule (which will apply to manufacturers only) is technically required for this CTG source category.<sup>7</sup> The MDAQMD will adopt a commercial and residential space heater RACT rule.

### Glass Manufacturing

The MDAQMD has an existing flat glass plant that is a major source of NO<sub>x</sub>. While this facility complies with BACT (circa 1987), a RACT backstop rule is technically required for this CTG source category.<sup>8</sup> The MDAQMD will adopt a flat glass manufacturing RACT rule.

### Publicly Owned Treatment Works

The MDAQMD has publicly owned treatment works (POTWs) within its jurisdiction. A RACT rule is technically required for this CTG source category.<sup>9</sup> The MDAQMD will adopt a POTW RACT rule.

### Polyester Resin Operations

The MDAQMD has major sources of ozone precursors from polyester resin operations. RACT has been determined for this source category by the Ventura County Air Pollution Control District (Rule 74.14 - *Polyester Resin Material Operations*) and by the San Joaquin Unified Air Pollution Control District (Rule 4684 - *Polyester Resin Operations*). The MDAQMD will adopt a polyester resin operations RACT rule.

## **Proposed Rule Adoption Schedule**

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

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<sup>4</sup> “Control of Volatile Organic Emissions From Existing Stationary Sources, Volume I: Control Methods for Surface Coating Operations.” EPA-450/2-76-028, 11/76. Specifically paper surface coating.

<sup>5</sup> “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, 5/77. Specifically paper surface coating.

<sup>6</sup> “ACT Document: Offset Lithographic Printing.” EPA-453/R-94-054, 6/94.

<sup>7</sup> “Summary of NO<sub>x</sub> Control Technologies and their Availability and Extent of Application,” EPA-450/3-92-004, 2/92. Specifically commercial and residential space heaters.

<sup>8</sup> *ibid.* Specifically glass manufacturing.

<sup>9</sup> “Control Techniques for VOC Emissions from Stationary Sources.” EPA-453/R-92-018, 12/92. Specifically Publicly Owned Treatment Works.

## **Appendices**

### A - RACT Evaluation Table

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## APPENDIX A - RACT EVALUATION TABLE

CTG Source Category	CTG's and ACT's/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).	The purpose of this document is to provide information on alternative control techniques for volatile organic compound (VOC) emissions from batch operations. Although the control, techniques information applies to batch processing in all industries, the document focuses primarily on batch processes in the following six industries: Plastics Material and Resin Manufacturing (SIC 2821, NAICS 325211); Pharmaceutical Preparations (SIC 2833, 2834); Gum and Wood Chemical Manufacturing (SIC 2861, NAICS 325191); Cyclic Crudes and Intermediates (SIC 2865); Pesticides and Other Agricultural Manufacturing (SIC 2879, NAICS 325320); Industrial Organic Chemicals (SIC 2869).	No Source, No Rule	FND filed 08/07/95, FND filed 12/29/94 (applies to SBC)	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474, and 60 FR 38, 01/31/95	FND Filed 08/07/95 and 12/29/94, no further action required.

CTG Source Category	CTG's and ACT's/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 – Exemptions Calculations 1305 – Emissions Offsets 1306 – Electric Energy Generating Facilities 1320 – New Source Review For Toxic Air Contaminants	Adopted 7/21/80, Amended 9/24/01	40 CFR 52.220(c)(239)(i)(A)(1) - 11/13/96 61 FR 58133	Meets RACT, no further 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:				
		<i>CT for Boilers (Utility; Industrial, Commercial and Institutional)</i>	1157 – Boilers and Process Heaters	Adopted 10/26/94, Amended 5/19/97	40 CFR 52.220(c)(268)(8)(B)(1) - 4/10/00 65 FR 18901	Meets RACT, no further action required.
			1158 – Electric Utility Operations	Adopted 02/22/95, Amended 08/25/97	40 CFR 52.220(c)(254)(i)(H)(2) - 07/20/99 64 FR 38832	Meets RACT, no further action required.
		<i>CT for Commercial and Residential Space Heaters</i>	Space Heaters (No Rule)			District to adopt RACT Rule for this category.
		<i>CT for Prime Movers ( ICE, Gas Turbines)</i>	1159 – Stationary Gas Turbines	Adopted 02/22/95	40 CFR 52.220(c)(216)(i)(A)(3) - 04/09/96 61 FR 15719	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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
			1160 – Internal Combustion Engines	Adopted 12/20/93, Amended 10/26/94	40 CFR 52.220(c)(207)(i)(D)(3) - 11/01/96 61 FR 56470	Meets RACT, no further action required.
		<i>CT for Municipal Waste Combustors (Combustion and Post-Combustion)</i>	Municipal Waste Combustors (No source, no rule)			File FND
		<i>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)</i>	1157 – Boilers and Process Heaters	Adopted 10/26/94, Amended 5/19/97	40 CFR 52.220(c)(268)(8)(B)(1) - 4/10/00 65 FR 18901	Meets RACT, no further action required.
			Petroleum Refining Catalytic Crackers and CO Boilers (No source, no rule)			File FND
			Metallurgical Processes (Iron and Steel) (No source, no rule)			File FND
			Glass Manufacturing	Reg XIII/NSR/BACT, exceeds RACT		District to adopt back stop Rule for this category.
			1161 – Portland Cement Kilns	Adopted 6/28/95, Amended 3/25/02	40 CFR 52.220(c)(300)(i)(A)(1) - 2/27/03 68 FR 9015	Meets RACT, no further action required.
			<i>CT for Noncombustion Industrial Processes (Nitric Acid Plants; Adipic Acid Plants; Explosives Manufacturing Plants)</i>	Nitric Acid Plants (No source, no rule)		
			Adipic Acid (No source, no rule)			File FND
			Explosives Manufacturing (No source, no rule)			File FND

CTG Source Category	CTG's and ACT's/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 (No source, no rule)			File FND
<b>RACM/RACT</b>						
	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:  <i>Cutback Asphalt (1103); Fixed-Roof Petroleum Tanks (463); Gasoline Bulk Plants (461); Gasoline Loading Terminals (462/1102); Misc. Refinery Sources (464/465); Stage I Vapor Recovery (461); Solvent Metal Cleaning (Degreasing) (1104); Surface Coating of: Automobiles and Light-Duty Trucks (1116), Cans, Fabrics, Large Appliances, Metal Coils, Metal Furniture (1115), Magnet Wire, and Paper; External Floating Roof Petroleum Tanks (463); Gasoline Tank Truck and Vapor Collection System Leaks (461); Graphic Arts (1117); Leaks from Petroleum Refinery Equipment; Surface Coating of Miscellaneous Metal Parts and Products (1115); Pneumatic Rubber Tire Manufacturing; Surface Coating of Flat Wood Paneling (1114); Synthesized Pharmaceutical Products; Air Oxidation Processes -</i>	1103 – Cutback and Emulsified Asphalt	Adopted 12/21/94	40 CFR 52.220(c)(207)(i)(C)(1) - 02/05/96 61 FR 4215	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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
		<i>SOCMI; Equipment Leaks from Natural Gas/Gasoline Processing Plants; Large Petroleum Dry Cleaners; Polymer Manufacturing; SOCMI and Polymer Manufacturing Equipment Leaks.</i>				
			461 – Gasoline Transfer and Dispensing	Adopted 01/09/76, Amended 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702.	Meets RACT, no further action required.
			462 – Organic Liquid Loading	Adopted 01/09/76, Amended 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702.	Meets RACT, no further action required.
			1102 – Fugitive Emissions of VOCs from Components at Pipeline Transfer Stations	Adopted 10/26/94	40 CFR 52.220(c)(207)(i)(D) - 09/27/95 60 FR 49772	Meets RACT, no further action required.
			463 – Storage of Organic Liquids	Adopted 01/09/76, Amended 11/02/92	40 CFR 52.220(c)(191)(i)(C) - 05/03/95 60 FR 21702.	Meets RACT, no further action required.
			465 – Vacuum Producing Devices or Systems	Rescinded 12/21/94	40 CFR 52.220(a)(1)(iii) - 09/11/95 60 FR 47074	FND filed 12/29/94, no further action required.
			464 – Oil-Water Separators (Rule applicability does not distinguish between refinery and other sources)	Adopted 05/07/76, Amended 08/24/94	40 CFR 52.220(c)(202)(i)(D)(1) - 09/27/95 60 FR 49772	Meets RACT, no further action required.
			1104 – Organic Solvent Degreasing Operations	Adopted 09/28/94	40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962	Meets RACT, no further action required.
			1116 – Automotive Finishing Operations	Adopted 03/02/92, Amended 04/26/99	40 CFR 52.220(c)(268)(8)(B)(1) - 04/10/00 65 FR 18901	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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
			Surface Coating of: Cans; Fabric; Large Appliance; Metal Coil; Metal Furniture; Magnet Wire; Paper	No source, No rule		File FND for all but paper. District will update Rule 1117 to meet RACT for this category.
			1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.
			Leaks from Petroleum Refinery Equipment	FND Filed 07/13/94 (applies to SBC)	40 CFR 52.222(a)(1)(i) - 01/31/95 60 FR 38	FND Filed 07/13/94, no further action required
			1115 – Metal Parts & Products Coating Operations	Adopted 03/02/92, Amended 04/22/96	40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002	Meets RACT, no further action required.
			Pneumatic Rubber Tire Manufacturing	No source, no rule		File FND
			1114 – Wood Products Coating Operations	Adopted 03/02/92, Amended 11/25/96	40 CFR 52.220(c)(244)(i)(C) - 08/18/98 63 FR 44132	Meets RACT, no further action required.
			Synthesized Pharmaceutical Products	FND filed 08/07/95, FND filed 12/29/94 (applies to SBC)	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474, and 60 FR 38, 01/31/95	FND Filed 08/07/95 and 12/29/94, no further action required.
			Air Oxidation Processes - SOCMI	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
			Equipment Leaks from Natural Gas/Gasoline Processing Plants	FND Filed 07/13/94 (applies to SBC)	40 CFR 52.222(a)(1)(i) - 01/31/95 60 FR 38	FND Filed 07/13/94, no further action required.
			Large Petroleum Dry Cleaners	No Source, No Rule		File FND
			Polymer Manufacturing	FND filed 08/07/95, FND filed 12/29/94 (applies to SBC)	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474, and 60 FR 38, 01/31/95	FND Filed 08/07/95 and 12/29/94, no further action required.

CTG Source Category	CTG's and ACT's/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
			SOCMI and Polymer Manufacturing Equipment Leaks	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
<b>Stationary VOC Sources</b>						
	1. Control Techniques for Volatile Organic Emissions from Stationary Sources (EPA-450/2-78-022, 5/78, Group II, NTIS PB-284-804), CTG. <b>Does not define RACT for any particular source.</b>	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.
		<b>Petroleum Refineries:</b> Equipment Leaks, Vacuum Processing Systems, Process Unit Turnarounds, Cooling Towers, and Wastewater Systems				See Individual RACT discussions.
		<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				See Individual RACT discussions.

CTG Source Category	CTG's and ACT's/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>Organic Chemical Manufacture:</b> Process Vents (Reactor Processes, Air Oxidation, and Distillation Operations), Volatile Organic Liquid Storage Tanks, Equipment Leaks, and Transfer				See Individual RACT discussions.
		<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, Architectural Coatings, Auto Refinishing, Other Surface Coating), <i>Graphic Arts</i> (Rotogravure, Flexography, Lithography, Letterpress, and Flexible Packaging), and <i>Adhesives</i>				See Individual RACT discussions.

CTG Source Category	CTG's and ACT's/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
			442 – Usage of Solvents (Covers adhesives)	Adopted 05/07/76, Amended 02/27/06	40 CFR 52.220(c)(51)(xii)(B) - 06/09/82 47 FR 25013	Meets RACT, no further action required.
		<b>Other Solvent Use:</b> Solvent Metal Cleaning, Petroleum Dry Cleaning, Cutback Asphalt				See Individual RACT discussions.
		<b>Other Miscellaneous Sources:</b> Stationary Fuel Combustion (External i.e.: boilers, and Internal i.e. ; turbines, ICE), 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 RACT discussions. Sources not included as individual discussions will be addressed here.

CTG Source Category	CTG's and ACT's/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>Automobile and Light-Duty Truck Coating Operations; Can, Coil, Paper, Fabric, Vinyl, Metal Furniture, Large Appliance, Magnet Wire, and Miscellaneous 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 Equipment; Solvent Metal Cleaning; Cutback and Emulsified Asphalt; Manufacture 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>				
<b>Fugitive VOC's</b>						
	<p>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.</p>	<p>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).</p>	No Source, No Rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, No Further Action Req'd

CTG Source Category	CTG's and ACT's/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>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 of Cans	No source, no rule			File FND
		Applies to surface coating of Coils	No source, no rule			File FND
		Applies all coatings put on paper, pressure sensitive tapes regardless of substrate (including paper, fabric or plastic film) and related web coating processes on plastic film such as typewriter ribbons, photographic film, and magnetic tape. Also included are decorative coatings on metal foil such as gift wrap and packaging.	1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.
		Applies to all types of fabric coating facilities using a coating line (A coating line consists of the application area and the drying oven. The application technique may be a roll, knife or rotogravure coater). A large portion of these facilities coat rubber used for rainwear, tents and industrial purposes such as gaskets and diaphragms. "Vinyl coating" refers to any printing or decorative or protective topcoat applied over vinyl coated fabric or vinyl sheets. It does not include the application of vinyl olastisol to the fabric (emissions from the application of plastisol are near zero).	No source, no rule			File FND

CTG Source Category	CTG's and ACT's/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
		Applies to surface coating operations at Automotive and Light Duty Truck Assembly Plants.	No source, no rule			File FND
<b>Aerospace: Coating Operations at Manufacturing And Rework Operations</b>						
	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	1118 – Aerospace Vehicle Parts and Products Coating Operations	Adopted 10/28/96	40 CFR 52.220(c)(242)(i)(A)(1) - 08/17/98 63 FR 43884	Meets RACT, no further action required. (Note: Fire Resistant Coating - Military, has higher VOC limit than RACT, but RACT doesn't define military specs. We have determined this Rule to be RACT for Military specs.
<b>Architectural Coating</b>						
	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.	1113 – Architectural Coatings	Adopted 02/20/79, Amended 02/24/03	LA/LD 40 CFR 52.220(c)(315)(i)(C)(1) - 01/02/04 69 FR 34. LA/LD applied only to CARB Averaging provision which expired 01/01/05. LA/LD no longer applies.	Meets RACT, no further action required.
<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	No source, no rule			File FND
		Applies to surface coating of Coils	No source, no rule			File FND

CTG Source Category	CTG's and ACT's/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
		Applies to all coatings put on paper, pressure sensitive tapes regardless of substrate (including paper, fabric or plastic film) and related web coating processes on plastic film such as typewriter ribbons, photographic film, and magnetic tape. Also included are decorative coatings on metal foil such as gift wrap and packaging.	1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.
		Applies to all types of fabric coating facilities using a coating line (A coating line consists of the application area and the drying oven. The application technique may be a roll, knife or rotogravure coater). A large portion of these facilities coat rubber used for rainwear, tents and industrial purposes such as gaskets and diaphragms. "Vinyl coating" refers to any printing or decorative or protective topcoat applied over vinyl coated fabric or vinyl sheets. It does not include the application of vinyl olastisol to the fabric (emissions from the application of plastisol are near zero).	No source, no rule			File FND
		Applies to surface coating operations at Automotive and Light Duty Truck Assembly Plants.	No source, no rule			File FND
	2. Reduction of VOC Emissions from Automobile Refinishing (EPA-450/3-88-009, 10/88, NTIS PB-89-148-282), ACT.	Applies to 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) large volume shops with annual sales of greater than \$750,000 that perform 14 partial and 15 complete vehicle jobs per week.	1115 – Metal Parts & Products Coating Operations	Adopted 03/02092, Amended 04/22/96	40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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
			1116 – Automotive Finishing Operations	Adopted 03/02/92, Amended 04/26/99	40 CFR 52.220(c)(268)(8)(B)(1) - 04/10/00 65 FR 18901	Meets RACT, no further action required. Rule based on SC rule which Meets/Exceeds Beyond RACT doc
	3. ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017,	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.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
	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.	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.	1115 – Metal Parts & Products Coating Operations	Adopted 03/02/92, Amended 04/22/96	40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002	Meets RACT, no further action required.
			1116 – Automotive Finishing Operations	Adopted 03/02/92, Amended 04/26/99	40 CFR 52.220(c)(268)(8)(B)(1) - 04/10/00 65 FR 18901	Meets RACT, no further action required. Rule based on SC rule which Meets/Exceeds Beyond RACT doc.

CTG Source Category	CTG's and ACT's/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).	(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. (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. (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. (1) Coatings or coating components that are manufactured (in or outside the United States) exclusively for sale outside the United States. (2) Coatings or coating components that are manufactured (in or outside the United States) before January 11, 1999. (3) Coatings or coating components that are manufactured (in or outside the United States) for use by original equipment manufacturers. (4) Coatings that are sold in nonrefillable aerosol containers. (5) Lacquer topcoats	No source, no rule			?
<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.	1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.

CTG Source Category	CTG's and ACT's/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: 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. Supplement to 11/93 CTG. Cannot be used alone, but must be used in conjunction with Draft CTG (1993), Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, September, 1993	No Source, No Rule. Note: District will check for sources that would require RACT under the proposed CTG. Will decide to adopt a new Rule or amend Rule 1117.	FND filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95. May require further action of amending Rule 1117 or adopting new rule.
<b>Large Appliances</b>						
	Control of Volatile Organic Emissions from Existing Stationary Sources, Vol V: Surface Coating of Large Appliances, (EPA-450/2-77-034, NTIS PB-278-259), CTG.	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			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.	No source, no rule			File FND
<b>Metal Coil, Container &amp; Closure</b>						
	See automobile coating.	Applies to coating of metal coil, container, and closure operations.	No source, no rule			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.	1115 – Metal Parts & Products Coating Operations	Adopted 03/02/92, Amended 04/22/96	40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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>Metal Parts &amp; Products</b>						
	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.	1115 – Metal Parts & Products Coating Operations	Adopted 03/02/92, Amended 04/22/96	40 CFR 52.220(c)(239)(i)(A)(2) - 12/23/97 62 FR 67002	Meets RACT, no further action required.
<b>Paper &amp; Fabric</b>						
	See automobile coating.	Applies all coatings put on paper, pressure sensitive tapes regardless of substrate (including paper, fabric or plastic film) and related web coating processes on plastic film such as typewriter ribbons, photographic film, and magnetic tape. Also included are decorative coatings on metal foil such as gift wrap and packaging.	1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.
		Applies to all types of fabric coating facilities using a coating line (A coating line consists of the application area and the drying oven. The application technique may be a roll, knife or rotogravure coater). A large portion of these facilities coat rubber used for rainwear, tents and industrial purposes such as gaskets and diaphragms. "Vinyl coating" refers to any printing or decorative or protective topcoat applied over vinyl coated fabric or vinyl sheets. It does not include the application of vinyl olastisol to the fabric (emissions from the application of plastisol are near zero).	No source, no rule			File FND

CTG Source Category	CTG's and ACT's/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>Plastic Parts</b>						
	1. ACT Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts (EPA-453/R-94-017, 2/94).	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, and window frames). The plastic parts used in all these sectors have similar coating	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
	2. See automobile coating.					

CTG Source Category	CTG's and ACT's/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>Ships</b>						
	<p>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.</p>	<p>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 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>	Rule 1106 – Marine Coating Operations	Proposed for adoption 08/28/06	To be submitted to SIP	RACT Rule in process of adoption at this time

CTG Source Category	CTG's and ACT's/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. CTG, see 61 FR 44050, 8/27/96.	The CTG for control of VOC emissions from surface coating operations in the shipbuilding and ship repair industry is available to assist States in analyzing and determining 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 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.	1106 – Marine Coating Operations	Proposed for adoption 08/28/06	To be submitted to SIP	RACT Rule in process of adoption at this time
<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 conveyORIZED degreasers which use volatile solvent to clean metal parts.	442 – Usage of Solvents	Adopted 05/07/76, Amended 02/27/06	40 CFR 52.220(c)(51)(xii)(B) - 06/09/82 47 FR 25013	Meets RACT, no further action required.
			1104 – Organic Solvent Degreasing Operations	Adopted 09/28/94	40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962	Meets RACT, no further action required.
	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.	40 CFR 63 Subpart T			State ATCM applies. Meets or exceeds RACT. See H & S Code §39658(b) and §39666(d).

CTG Source Category	CTG's and ACT's/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; Industrial Cleaning Solvents (EPA-453/R-94-015, 2/94, NTIS PB-94-156-79).	Applies to industrial cleaning with organic solvents. (Vapor degreasers and conveyorized, batch-loaded, and remote reservoir cold cleaners, when used for cleaning metal parts, were not addressed in this study, but are addressed in another report titled Control of Volatile Organic Emissions from Solvent Metal Cleaning, EPA-450/2-77-022, November 1977.) Contaminants must be periodically removed from parts, products, tools, machinery, equipment, vessels, floors, walls, and other work areas for a variety of reasons including safety, operability, and to avoid product contamination. Examines dipping, flushing, purging, spraying and wiping activities.	442 – Usage of Solvents	Adopted 05/07/76, Amended 02/27/06	40 CFR 52.220(c)(51)(xii)(B) - 06/09/82 47 FR 25013	Meets RACT, no further action required.
			1104 – Organic Solvent Degreasing Operations	Adopted 09/28/94	40 CFR 52.220(c)(207)(i)(D)(2) - 04/30/96 61 FR 18962	Meets RACT, no further action required.
<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 traffic markings, including (1) solvent-borne paint, (2) waterborne paints, (3) thermoplastics, (4) preformed tapes (with or without adhesive primer), (5) field-reacted materials (epoxy and polyester), and (6) permanent markers. This is a very unique source inasmuch as the State Government generally has total control of the specifications for the coatings. The purchase and application of traffic markings is generally under the purview of the State Departments of Transportation, consequently, the control of VOC emissions, that is the development of regulations and implementation of control techniques, lies completely within the control of the Governor.	1113 – Architectural Coatings	Adopted 02/20/79, Amended 02/24/03	LA/LD 40 CFR 52.220(c)(315)(i)(C)(1) - 01/02/04 69 FR 34. LA/LD applied only to CARB Averaging provision which expired 01/01/05. LA/LD no longer applies.	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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 prefinished flat wood construction products including interior paneling made of wood materials such as plywood, particleboard, and hardboard.	1114 – Wood Products Coating Operations	Adopted 03/02/92, Amended 11/25/96	40 CFR 52.220(c)(244)(i)(C) - 08/18/98 63 FR 44132	Meets RACT, no further action required.
<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 10 Standard Industrial Classification (SIC) codes for the "wood furniture" industry. The 10 SIC codes include Wood Kitchen Cabinets; Wood Household Furniture (except upholstered); Wood Household Furniture (upholstered); Wood Television, Radios, Phonograph, and Sewing Machine Cabinets; Household Furniture Not Classified Elsewhere; Wood Office Furniture; Public Building and Related Furniture; Wood Office and Store Fixtures; Furniture and Fixtures Not Elsewhere Classified; and Custom Kitchen Cabinets. Three of the SIC codes, 2519, 2531, and 2599, include the manufacture of nonwood products. However, the CTG will apply only to those products manufactured of wood and wood products (including particle board, reed, rattan, wicker, etc.).	1114 – Wood Products Coating Operations	Adopted 03/02/92, Amended 11/25/96	40 CFR 52.220(c)(244)(i)(C) - 08/18/98 63 FR 44132	Meets RACT, no further action required.
	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 drying during manufacture of softwood plywood composed of layers of wood veneer glued together with an adhesive, usually a synthetic resin.	No source, no rule			File FND

CTG Source Category	CTG's and ACT's/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>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 (76,000 liters) of gasoline or less.	Rule 463 – Storage of Organic Liquids	Adopted 01/09/76, Amended 11/02/92	40 CFR 52.2209(c)(191)(i)(C) - 05/03/95 60 FR 21702	Meets RACT, no further action required.
<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 fuels gas gathering systems unless they are located at a gas processing plant.	No source, no rule	FND Filed 07/13/94 (applies to SBC)	40 CFR 52.222(a)(1)(i) - 01/31/95 60 FR 38	FND Filed 07/13/94, no further action required.
<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-275-662), CTG.	Applies to non-condensables from vacuum producing systems, waste water separators, and all pressurized process units.	465 – Vacuum Producing devices or Systems	Rescinded 12/21/94	40 CFR 52.220(a)(1)(iii) - 09/11/95 60 FR 47074	FND Filed 12/29/94, no further action required.
			464 – Oil-Water Separators	Adopted 05/07/76, Amended 08/24/94	40 CFR 52.220(c)(202)(i)(D)(1) - 09/27/95 FR 49772	Meets RACT, no further action required.
			Process Unit Turnarounds (No source, no rule)			

CTG Source Category	CTG's and ACT's/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),	Applies to the control of volatile organic compounds (VOC) from equipment leaks in petroleum refineries . Equipment considered includes pump seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open ended pipes.	No source, no rule	FND Filed 07/13/94 (applies to SBC)	40 CFR 52.222(a)(1)(i) - 01/31/95 60 FR 38	FND Filed 07/13/94, no further action required.
	3. Petroleum Refinery Tier 2 BACT Analysis Report (Eastern Research Group for EPA, 1/16/01).	As part of the Tier 2 program, refineries must produce gasoline with a lower sulfur content, because sulfur in gasoline significantly impairs vehicle emissions control systems and contributes to harmful air pollution. Accordingly, most refineries must meet an average gasoline sulfur level of 30 ppm beginning in 2005, compared to a current average of approximately 270 ppm. Small refiners will have additional time to comply.	No source, no rule	FND Filed 07/13/94 (applies to SBC)	40 CFR 52.222(a)(1)(i) - 01/31/95 60 FR 38	FND Filed 07/13/94, no further action required.
	4. ACT Document- Organic Waste Process Vents (EPA-450/3-91-007, 12/90, NTIS PB-91-148270).	Provides information to address VOC emissions from process vents on waste management units treating organic-containing wastes that are exempted from the RCRA process vent standards (40 CFR Part 264 and 265, Subpart AA). The process vents addressed in this ACT include those on waste management units (i.e., distillation and stripping operations) at TSDf treating wastes with total organics concentration of less than 10 ppm and those on treatment units that are part of a waste management system exempt from RCRA permitting, e.g., a nonhazardous waste treatment system or wastewater treatment system.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.

CTG Source Category	CTG's and ACT's/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. 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 four industries: the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) Industry; the Pesticide Industry, the Pharmaceutical Industry; and the Hazardous Waste Treatment Storage, and Disposal Facilities Industry (TSDF). These industries have the potential to generate wastewaters containing high concentrations of organic compounds.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
<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 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702	Meets RACT, 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 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702	Meets RACT, 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 Nonattainment Areas (EPA Region IX, 4/00).	Applicability [To meet the requirements of RACT]: <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>	461 – Gasoline Transfer and Dispensing	Adopted 01/09/76, Amended 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
	2. Control of VOC Emissions from Reactor Processes and Distillation Operations in SOCOMI (EPA-450/4-91-031, 11/15/93, NTIS PB-92-180-009), CTG.	Applies to VOC emissions from two types of process vents occurring at plants in the Synthetic Organic Chemical Manufacturing Industry (SOCMI): reactors (other than those involving air oxidation processes) and distillation columns.		FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND Filed 08/07/95, no further action required.
<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.	463 – Storage of Organic Liquids	Adopted 01/09/76, Amended 11/02/92	40 CFR 52.220(c)(191)(i)(C) - 05/03/95 60 FR 21702	Meets RACT, 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.	463 – Storage of Organic Liquids	Adopted 01/09/76, Amended 11/02/92	40 CFR 52.220(c)(191)(i)(C) - 05/03/95 60 FR 21702	Meets RACT, no further action required.
	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, liquid terminals.	463 – Storage of Organic Liquids	Adopted 01/09/76, Amended 11/02/92	40 CFR 52.220(c)(191)(i)(C) - 05/03/95 60 FR 21702	Meets RACT, 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.	462 – Organic Liquid Loading	Adopted 01/09/76, Amended 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702	Meets RACT, no further action required.

CTG Source Category	CTG's and ACT's/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 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 05/25/94	40 CFR 52.220(c)(198)(i)(E)(1) - 05/03/95 60 FR 21702	Meets RACT, 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.	No source, no rule			File FND
	2. ACT Document-NOx Emissions from Utility Boilers (EPA-453/R-94-023, 3/94).	Applies to fossil fuel-fired utility boilers.	1158 – Electric Power Generating Facilities	Adopted 02/22/95, Amended 08/25/97	40 CFR 52.220(c)(254)(i)(H)(2) - 07/20/99 64 FR 38832	Meets RACT, no further action required.
	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.	1157 – Boilers and Process Heaters	Adopted 10/26/94, Amended 05/19/97	40 CFR 52.220(c)(268)(8)(B)(1) - 04/10/00 65 FR 18901	Meets RACT, no further action required.
<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 (NO <sub>x</sub> ) 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 NO <sub>x</sub> emissions from cement kilns.	1161 – Portland Cement Kilns	Adopted 06/28/95, Amended 03/25/02	40 CFR 52.220(c)(300)(i)(A)(1) - 02/27/03 68 FR 9015	Meets RACT, no further action required.

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<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.	1159 – Stationary Gas Turbines	Adopted 02/22/95	40 CFR 52.220(c)(216)(i)(A)(3) - 04/09/96 61 FR 15719	Meets RACT, no further 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.	Reg XIII/NSR/BACT, exceeds RACT			District to adopt back stop Rule for this category.
<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.	1160 – Internal Combustion Engines	Adopted 12/20/93, Amended 10/26/94	40 CFR 52.220(c)(207)(i)(D)(3) - 11/01/96 61 FR 56470	Meets RACT, no further action required.
<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.	No source, no rule			File FND
<b>Municipal Waste Combustion</b>						
	1. 40 CFR subpart Cb- Emission Guidelines and Compliance Schedules for Municipal Waste Combustors.	(a) The designated facility to which these guidelines apply is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994. (k) Air curtain incinerators that meet the capacity specifications in paragraph (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart. Other sections not listed have exemptions.	No source, no rule			File FND

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	2. 40 CFR 62 subpart FFF, Federal Plan for Existing Large MWC Units.	(a) The affected facility to which this subpart applies is each municipal waste combustor unit with a capacity to combust greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994 that is not regulated by an EPA approved and currently effective State or Tribal plan. (l) Air curtain incinerators that meet the capacity specifications in paragraph (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart. Other sections not listed have exemptions.	No source, no rule			File FND
<b>NOx Rules</b>						
	1. Summary of State NOx Rules, 9/29/95.	Summarizes State NOx RACT Rules. The following rules are included for MDAQMD. Note: Rule 1158, Rule 1157 and Rule 1161 have been amended since this document was published.	1158 – Electric Power Generating Facilities	Adopted 02/22/95, Amended 08/25/97	40 CFR 52.220(c)(254)(i)(H)(2) - 07/20/99 64 FR 38832	Meets RACT, no further action required.
			1157 – Boilers and Process Heaters	Adopted 10/26/94, Amended 5/19/97	40 CFR 52.220(c)(268)(8)(B)(1) - 4/10/00 65 FR 18901	Meets RACT, no further action required.
			1160 – Internal Combustion Engines	Adopted 12/20/93, Amended 10/26/94	40 CFR 52.220(c)(207)(i)(D)(3) - 11/01/96 61 FR 56470	Meets RACT, no further action required.
			1159 – Stationary Gas Turbines	Adopted 02/22/95	40 CFR 52.220(c)(216)(i)(A)(3) - 04/09/96 61 FR 15719	Meets RACT, no further action required.
			Rule 1161 – Portland Cement Kilns	Adopted 6/28/95, Amended 3/25/02	40 CFR 52.220(c)(300)(i)(A)(1) - 2/27/03 68 FR 9015	Meets RACT, no further action required.

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	2. Cost Effective NOx RACT, 3/16/94.	This memorandum provides guidance for determining NOx RACT [required by section 182(f) of the Clean Air Act (Act)] as it relates to non-utility sources and utility boilers which were not addressed by the Environmental Protection Agency's (EPA's) previous guidance. The guidance states that: "Comparability shall be determined on the basis of several factors including, for example, cost, cost-effectiveness, and emission reductions." This memorandum primarily addresses one of the factors in a NOx RACT determination--cost effectiveness--and provides guidance on how to determine which control techniques are of "comparable cost-effectiveness for NOx RACT."				No action required
	3. De Minimis Values for NOx RACT, 1/1/95.	As a result of this review, EPA does not recommend specific de minimis values, but presents the attached factors as a guide in the development and review of State de minimis rules. In addition, we strongly recommend that de minimis values be based on more than one factor.				No action required

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	4. Scope of NOx Exemptions RACT, 1/12/95.	Section 182(f) provides three cases where the NOx requirements shall not apply: (1) net air quality benefits, (2) contribution to attainment, and (3) net ozone benefit. If EPA determines that any one of the three cases applies, the section 182(f) NOx requirements "shall not apply." The section 182(f) NOx requirements are RACT (section 182(b))1 and nonattainment NSR (section 173)2. Thus, where one of the three cases applies and	the exemption is granted by EPA, the affected sources are no longer required to meet either the NOx RACT or nonattainment NSR requirements.			No action required
	5. Fuel Switching to NOx RACT, 7/30/93.	The purpose of this memorandum is to provide guidance to States on the use of fuel switching to meet the NOx RACT requirements.				No action required

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	6. Section 182(f) NOx Exemptions Revised Process and Criteria, 2/8/95.	Clarifies guidance concerning NOx exemptions under section 182(f) of the CAA and interstate transport of emissions under section 110(a)(2)(D) of the CAA. 1. EPA believes that these two sections must be considered independently. Under section 182(f), an exemption from the NOx requirements may be granted for nonattainment areas outside an ozone transport region if EPA determines that "additional reductions of [NOx] would not contribute to attainment of the national ambient air quality standard for ozone in the area." The EPA believes that the term "area" means the "nonattainment area" and that EPA's determination is limited to consideration of the effects in the nonattainment area due to NOx emissions reductions from sources in the same nonattainment area. The EPA has separate authority under section 110(a)(2)(D) to require a State to reduce emissions from stationary and/or mobile sources where there is evidence showing that such emissions would contribute significantly to nonattainment or interfere with mai				No action required
	7. NOx Questions from Ohio EPA, 1993.	This memorandum addresses 10 questions regarding the NOx reasonably available control technology (RACT) issues raised in a November 30, 1993 memorandum from EPA Region V to Office of Air Quality Planning and Standards. .				No action required
	8. NOx RACT for Repowering of Utility Boilers, 3/9/94.	This memorandum provides guidance on the determination of NOx RACT in cases where a utility commits to repower its boiler in the near future.				No action required

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	9. NOx Exemptions Revised and Process Criteria, 5/27/94.	The guidance in this memorandum applies to marginal and above ozone nonattainment areas because the section 182(f) exemption is directed at major NOx stationary sources only in marginal and above ozone nonattainment areas. The guidance does not address nonclassifiable ozone nonattainment areas (i.e., transitional, submarginal, or incomplete/no data areas).				No action required
	10. NOx Policy Documents for the CAA of 1990.	The guidelines and memorandums can be grouped as follows: -Questions and answers that cover such issues as dispersion modeling, deadlines for implementing NOx RACT rules, and NOx RACT Committal SIPs -Fuel Switching to meet the RACT requirements for Nitrogen Oxides. - Relationship of NOx RACT requirements to requests for redesignation to attainment for ozone and carbon monoxide -NOx Substitution Guidance -Requests for NOx RACT exemptions under Section 182(f) of the Act -NOx RACT for repowering of utility boilers -Cost-effective estimates for NOx RACT -Failure to submit NOx RACT rules -Deminimis Values for NOx RACT Rules				No 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 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 action required.

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<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 action required.
	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 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 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 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 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 action required.
<b>De Minimis Analysis</b>						
	1. 59 FR 42011 (8/16/94).	Not applicable to 8-hour ozone RACT SIP analysis				No action required.
	2. 40 CFR 51.165(b)(1).	Not applicable to 8-hour ozone RACT SIP analysis				No 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.		1103 – Cutback and Emulsified Asphalt	Adopted 12/21/94	40 CFR 52.220(c)(207)(i)(C)(1) - 02/05/96 61 FR 4215	Meets RACT, no further action required.

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<b>Bakeries</b>						
	1. ACT Document-Bakery Oven Emissions (EPA-453/R-92-017, 12/92).	This document applies to large commercial bakeries (ovens with a rated heat input capacity of 2 million BTU/hr or more and with a daily average emission of 50 pounds or more of VOC (South Coast Rule 1153)) that produce bread, rolls, buns, and similar products, but not those that produce crackers, pretzels, sweet goods, or baked foodstuffs that are not yeast-leavened.	No source, no rule			File FND
	2. Issues Concerning Bakery RACT Requirements (2/8/95).	In those cases where achieving 80 to 95 percent overall emissions reductions might be technically feasible but would not be economically reasonable due to factors specific to a particular site, EPA may allow the State to determine what level of control would be reasonable through an alternative-RACT determination. Recommends that EPA allow States to establish appropriate exemption levels for small emitting ovens, provided that they include a justification of the exemption as part of their SIP submittal.	No source, no rule			File FND
<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.	(A) This Regulation applies to petroleum solvent washers, dryers, solvent filters, settling tanks, vacuum stills, and other containers and conveyors of petroleum solvent that are used in petroleum solvent dry cleaning facilities. (B) This Regulation applies to all petroleum solvent dry cleaning facilities that consume 123,000 liters or more of petroleum solvent annually.	No source, no rule			File FND

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	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).	Covered by State ATCM. Applies to any person who owns or operates perchloroethylene dry cleaning equipment.	Airborne Toxic Control Measure (ATCM) for Emissions of Perchloroethylene from Dry Cleaning Operations	05/04/94	Section 93109, Titles 17 and 26, California Code of Regulation	State ATCM applies. Meets or exceeds RACT. See H & S Code §39658(b) and §39666(d).
<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 introduction of medical equipment supplies, in miscellaneous sterilization and fumigation operations and at hospitals. State ATCM adopted "Ethylene Oxide Airborne Toxic Control Measures - Part 1 Non-Commercial Sterilizers and Aerators and Commercial Sterilizers Using Less than 2,000 Pounds of Ethylene Oxide per 12 Consecutive Months" and "Ethylene Oxide Airborne Toxic Control Measure - Part 2 Commercial Sterilizers and Aerators Using 2,000 Pounds or More of Ethylene Oxide per 12 Consecutive Months".	1501 – Control of Ethylene Oxide Emissions	Rescinded 11/27/00	Not SIP. 17 Cal. Code of Reg. §93108. Ethylene Oxide Airborne Toxic Control Measure -Part 1 - Non-Commercial Sterilizers and Aerators and Commercial Sterilizers and Aerators Using Less Than 2,000 Pounds of Ethylene Oxide per 12 Consecutive Months. §93108.5. Ethylene Oxide Airborne Toxic Control Measure -Part 2 - Commercial Sterilizers and Aerators Using 2,000 Pounds or More of Ethylene Oxide per 12 Consecutive Months.	State ATCM applies. Meets or exceeds RACT. See H & S Code §39658(b) and §39666(d).
<b>Fertilizer</b>						
	Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants (EPA-450/2-77-005, 3/77).	Applies to production of wet-process phosphoric acid (WPPA), superphosphoric acid (SPA), diammonium phosphate (DAP), triple superphosphate (TSP), and for storage facilities used in the manufacture of granular triple superphosphate (GTSP).	No source, no rule			File FND

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<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 letter press inks, lithographic and offset inks, gravure inks and flexographic inks.	442 – Usage of Solvents	Adopted 05/07/76, Amended 02/27/06	40 CFR 52.220(c)(125)(ii)(D) - 11/16/83 48 FR 52054	Meets RACT, no further action required.
			1113 – Architectural Coatings	Adopted 02/20/79, Amended 02/24/03	LA/LD 40 CFR 52.220(c)(315)(i)(C)(1) - 01/02/04 69 FR 34. LA/LD applied only to CARB Averaging provision which expired 01/01/05. LA/LD no longer applies.	Meets RACT, no further action required.
			1117 – Graphic Arts	Adopted 06/22/94	40 CFR 52.220(c)(198)(i)(E)(2) - 04/30/96 61 FR 18962	District will update Rule to meet RACT for this category.
<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 tanning and finishing operations.	No source, no rule			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 acid manufacturing facilities.	No source, no rule			File FND
		Applies to adipic acid manufacturing facilities.	No source, no rule			File FND
<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 used for agricultural purpose.	3 CCR 12824			Regulated by the Department of Pesticide Regulation (State of California)

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<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.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
<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 source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
	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.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
	3. Control of VOC Emissions from Manufacture of Styrene-Butadiene Copolymers- Preliminary Draft CTG, 4/81.	Applies to emissions from the manufacture of styrene-butadiene copolymers.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
	4. Polystyrene Foam Manufacturing (EPA-450/3-90-020, NTIS PB-91-102111).	Applies to the manufacture of polystyrene foam (PSF) products by extrusion or expandable bead blowing.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
<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, undertread cementing, tread end cementing, bead dripping and green tire spraying	No source, no 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 sulfuric acid manufacturing units.	No source, no rule			File FND

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<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.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95
	2. ACT Document: Air Emissions from Industrial Wastewater (4/94). ACT consists of cover memo with option tables and CTG draft.	Presents changes to the Industrial Wastewater CTG regarding Fe (fraction emitted), Fr (fraction removed), and Fm (fraction measured) values.	No source, no rule	FND Filed 08/07/95	40 CFR 52.222(A)(1)(iv) - 11/01/96 61 FR 56474	FND filed 08/07/95

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