VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

2009 REASONABLY AVAILABLE CONTROL TECHNOLOGY STATE IMPLEMENTATION PLAN (2009 RACT SIP) REVISION

SEPTEMBER 15, 2009

LEGAL & REGULATORY BACKGROUND

The federal Clean Air Act Amendments (CAAA) of 1990 gives the states primary responsibility for achieving the national ambient air quality standards (NAAQS). The NAAQS are set by the U.S. Environmental Protection Agency (EPA) as the maximum concentrations in the atmosphere for specific air contaminants to protect public health and welfare. The principal mechanism at the state and local level for complying with the CAAA is the State Implementation Plan (SIP). A SIP outlines the programs, actions, and commitments a state will carry out to implement its responsibilities under the CAAA.

Sections 182(b)(2) and 182(f) of the CAAA (42 U.S.C. §7511(a)) require ozone nonattainment areas to implement reasonably available control technology (RACT) emission standards for sources of air pollution that are subject to control techniques guidelines (CTG) issued by EPA.[1] RACT is also required for "major sources"[2] of volatile organic compounds (VOC) and nitrogen oxides (NOx) emissions, which are precursors of ozone or urban smog. RACT is defined as the lowest emissions limitation that a particular source is capable of meeting by the application of air pollution control technology that is reasonably available considering technological and economic feasibility (44 FR 53762; September 17, 1979).[3]

PURPOSE OF A RACT SIP

The purpose of the *2009 Reasonably Available Control Technology State Implementation Plan Revision* (2009 RACT SIP) is to demonstrate that all District rules applicable to ozone precursor emissions meet or exceed reasonably available control technology (RACT) and fulfill RACT requirements for the federal 8-hour ozone standard. This process is necessary because Ventura County is classified as a serious nonattainment area for the federal 8-hour ozone standard.

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[1] CTGs are guidance documents that define RACT for existing sources of air pollution. Emission sources subject to CTGs are called CTG sources. RACT controls are also required on major VOC and NOx stationary sources not covered by CTGs. Such sources are called non-CTG sources.

[2] In Ventura County, Rule 26, New Source Review, defines major stationary VOC and NOx sources as those with a potential to emit 25 tons or more of VOC or NOx.

[3] RACT requirements are included in the Clean Air Act to ensure that significant source categories at major sources of ozone precursor emissions are controlled to a "reasonable" extent, but not necessarily to the more stringent best available control technology (BACT) or maximum achievable control technology (MACT) levels expected for new or modified major stationary sources.

REQUIREMENTS FOR A RACT SIP

According to the EPA's Final Rule to Implement the 8-Hour Ozone NAAQS (70 FR 71612; November 29, 2005), areas classified as moderate ozone nonattainment or higher were to certify that their rules fulfill 8-hour ozone RACT for all CTG categories and all major non-CTG sources as a revision to their SIPs. The SIP revisions were due to EPA by September 15, 2006.

The EPA released official guidance for preparing RACT SIPs on May 18, 2006. The guidance is in a question and answer format and is titled *Questions Related to RACT in 8-Hour Ozone Implementation*. In addition, EPA Region 9 provided a basic framework for the RACT SIPs. That framework was contained in a letter (March 9, 2006) from EPA Region 9 to the California Air Resources Board (CARB) and is presented below:

- Describe efforts to identify all source categories within the District requiring RACT, including CTG sources (i.e., covered by an EPA CTG document) and major non-CTG sources.

- Submit negative declarations where there are no facilities (major or minor) within the District subject to a CTG.

- For all categories needing RACT, list the state/local regulation that implements RACT. It may also be helpful to list the date EPA approved these regulations as fulfilling RACT.

- Describe the basis for concluding that the regulations fulfill RACT. Documents useful in establishing RACT include CTGs, alternative control techniques (ACT) guidance, MACT standards, new source performance standards (NSPS), California suggested control measures (SCM), RACT/best available retrofit control technology determinations, regulations adopted in other Districts, and guidance and rules developed by other state and local agencies.

- Some Districts may use the California Air Pollution Control Officers Association (CAPCOA) September 2003 *Potential All Feasible Measures (AFM) Report* to help demonstrate RACT. If so, the RACT SIP should certify that local regulations are equivalent to AFM, justify the assumption that the AFM fulfilled RACT in 2003, and include some sort of certification or demonstration that no additional controls have become more reasonably available since then.

DISTRICT RACT HISTORY

The District approved its 2006 RACT SIP on June 27, 2006. The 2006 RACT SIP found that all District rules that apply to ozone precursor emissions fulfill RACT requirements for the 8-hour ozone NAAQS. District rules meet or exceed RACT because they comply

with more current and stringent control requirements of the California Clean Air Act. The 2006 RACT SIP also found that all CTG sources and major non-CTG sources within District boundaries meet or exceed RACT. The 2006 RACT SIP was submitted as a moderate ozone nonattainment area RACT certification. Moderate area RACT certifications must consider all CTG sources and major non-CTG sources with a potential to emit 100 tons per year or greater of either VOC or NOx. The 2006 RACT SIP, however, considered all CTG and major non-CTG sources with the potential to emit 25 tons per year or greater of VOC or NOx, the RACT certification threshold for severe areas.

On May 20, 2008, EPA granted the District's request to reclassify (i.e., "bump-up") from a moderate ozone nonattainment area to a serious ozone nonattainment area. The District requested reclassification because photochemical modeling, along with other analyses, conducted for the Ventura County 2007 Air Quality Management Plan indicated that Ventura County would not attain the federal eight-hour ozone standard by the deadline for moderate ozone nonattainment areas and would need more time to attain the federal eight-hour ozone standard. This classification bump-up obligated the District to certify that all CTG sources and major non-CTG sources with the potential to emit 50 tons per year or greater of VOC or NOx meet or exceed RACT. Therefore, since the 2006 RACT SIP considered CTG sources and major non-CTG VOC and NOx sources down to 25 tons per year, the 2006 RACT SIP is able to serve as the District's serious area RACT certification for CTGs issued prior to 2006.

EPA approved the District's 2006 RACT SIP Revision on April 21, 2009.

2009 RACT ANALYSES AND FINDINGS

Since District adoption of the 2006 RACT SIP, EPA has issued eleven new CTGs: four in 2006, three in 2007, and four in 2008. In response, District staff prepared the 2009 RACT SIP Revision to address the new CTGs. The new CTGs are presented in Table 1, "Source Categories, CTG Documents Issued Since Adoption of the Ventura County 2006 RACT SIP, and Applicable District Rules."

The 2009 RACT SIP Revision is divided into two sections. Attachment 1, "Ventura County APCD 2009 RACT Negative Declarations" includes negative declarations covering eight CTG categories for which Ventura County either has no sources or has sources but the sources area below the CTG applicability thresholds. Attachment 2, "Ventura County APCD 2009 RACT Certifications" includes RACT certifications covering the three CTG categories for which Ventura County has sources above the CTG applicability thresholds.

Summary - Negative Declarations

The District is required to submit negative declarations for all CTG categories for which there are: 1) no subject sources in the county; or, 2) no subject sources with emissions

above CTG applicability thresholds. The purpose of the negative declarations (see Attachment 1) is to certify that Ventura County does not have sources subject to the CTGs.

Ventura County does not have sources for the following four CTG categories:

- Flat Wood Paneling Coatings
- Large Appliance Coatings
- Paper, Fabric, and Foil Coatings
- Automobile and Light-Duty Truck Assembly Coatings

Ventura County has sources for the following four CTG categories, but ROC emissions associated with each subject source are less than the CTG applicability thresholds:

- Miscellaneous Industrial Adhesives
- Flexible Package Printing
- Metal Furniture Coating
- Fiberglass Boat Manufacturing Materials

Summary - RACT Certifications

The District is required to certify that all District rules covered by CTGs, and for which it has sources with emissions over the relevant CTG applicability thresholds, meet or exceed RACT.

Ventura County has sources with ROC emissions above the relevant CTG applicability thresholds for the following three CTG categories (see Attachment 2):

- Offset Lithographic Printing and Letterpress Printing
- Miscellaneous Metal and Plastic Parts Coatings
- Industrial Cleaning Solvents

CONCLUSION

Based on the 2006 RACT SIP and the proposed 2009 RACT SIP revisions, the District has fulfilled RACT certification requirements for a serious federal 8-hour ozone nonattainment area.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The 2009 RACT SIP Revision is an evaluation of current District air pollution rules and will not result in new or revised District rules or any physical change in the environment. Therefore, adoption of the proposed 2009 RACT SIP Revision is not a project as defined in Section 15378(a) of the CEQA Guidelines and therefore not subject to CEQA review pursuant to CEQA Guidelines Section 15060(c)(3).

Table 1
Source Categories, CTG Documents Issued Since Adoption of the Ventura County 2006 RACT SIP, and Applicable District Rules

Source Category	CTG Document	Applicability	Subject Sources?	VCAPCD Rule	Date Last Amended	EPA Approval*	Meets RACT?
Industrial Cleaning Solvents	Control Techniques Guidelines for Industrial Cleaning Solvents (EPA-453/R-06-001; 9/06)	Applies to industries that have to use organic solvent for cleaning unit operations such as mixing vessels (tanks), spray booths, and parts cleaners, where a facility emits at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls in an ozone nonattainment area. The cleaning activities for removal of foreign material from substrate being cleaned includes actions (activities) such as wiping, flushing, or spraying.	Yes (see Attachment 2)	a) Various b) 74.6 - Surface Cleaning and Degreasing	NA** 11/11/03	NA 11/11/03	Yes Yes
Flexible Packaging Printing	Control Techniques Guidelines for Flexible Packaging Printing (EPA-453/R-06-003, 9/06)	Applies to flexible packaging printing operations that emit at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Flat Wood Paneling Coatings	Control Techniques Guidelines for Flat Wood Paneling Coatings (EPA-453/R-06-004, 9/06)	Applies to facilities that apply flat wood paneling coatings that emit at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Offset Lithographic Printing and Letterpress Printing	Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002, 9/06)	Applies to cleaning materials and fountain solutions used in any offset lithographic printing operation where the emissions associated with all aspects of the operation equal or exceed 6.8 kg/day (15 lb/day) actual emissions of VOC, or an equivalent level, before consideration of controls. Also applies to heatset web offset lithographic printing operations and heatset web letterpress printing operations with potential to emit from the dryer, prior to controls, at least 25 ton/yr of VOC (petroleum ink oil) from heatset inks.	Yes (see Attachment 2)	Rule 74.19 - Graphic Arts	11/11/03	11/11/03	Yes

Source Category	CTG Document	Applicability	Subject Sources?	VCAPCD Rule	Date Last Amended	EPA Approval*	Meets RACT?
Large Appliance Coatings	Control Techniques Guidelines for Large Appliance Coatings (EPA-453/R-07-004, 9/07)	Applies to large appliance coating units at facilities where the total actual VOC emissions from all large appliance coating operations, including cleaning activities, at that facility are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Metal Furniture Coatings	Control Techniques Guidelines for Metal Furniture Coatings (EPA-453/R-07-005, 9/07)	Applies to metal surface coating units at facilities where the total actual VOC emissions from all metal furniture coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Paper, Film, and Foil Coatings	Control Techniques Guidelines for Paper, Film, and Foil Coatings (EPA-453/R-07-003, 9/07)	Applies to facilities where the total actual VOC emissions from all paper, film, and foil coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Miscellaneous Metal and Plastic Parts Coatings	Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003, 9/08)	Applies to miscellaneous metal product and plastic parts surface coating units at facilities where the total actual VOC emissions from all miscellaneous metal product and plastic parts surface coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	Yes (see Attachment 2)	74.12 – Miscellaneous Metal Parts and Products	4/8/08	NA	Yes
Fiberglass Boat Manufacturing	Control Techniques Guidelines for Fiberglass Boat Manufacturing (EPA-453/R-08-004, 9/08)	Applies to facilities that manufacture hulls or decks of boats from fiberglass, or build molds to make fiberglass boat hulls or decks, where the total actual VOC emissions, including cleaning activities, from all fiberglass boat-manufacturing operations covered by the CTG are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA
Miscellaneous Industrial Adhesives	Control Techniques Guidelines for Miscellaneous Industrial Adhesives (EPA-453/R-08-005, 9/08)	Applies to miscellaneous industrial adhesive processes at facilities where the total actual VOC emissions from all miscellaneous industrial adhesive application processes, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No (see Attachment 1)	NA	NA	NA	NA

Source Category	CTG Document	Applicability	Subject Sources?	VCAPCD Rule	Date Last Amended	EPA Approval*	Meets RACT?
Automobile and Light-Duty Truck Assembly Coatings	Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (EPA-453/R-08-006, 9/08)	Applies to VOC emissions stemming from the use of coatings in automobile and light-duty truck assembly coating operations.	No (see Attachment 1)	NA	NA	NA	NA

* Date of EPA Federal Register Notice

** Not applicable

ATTACHMENT 1
VENTURA COUNTY APCD
2009 RACT NEGATIVE DECLARATIONS

RACT SOURCE CATEGORIES WITH NO SOURCES IN VENTURA COUNTY

RACT Source Categories

Flat Wood Paneling Coatings
Large Appliance Coatings
Paper, Film, and Foil Coatings
Automobile and Light-Duty Truck Assembly Coatings

RACT Guidance Documents

Control Techniques Guidelines for Flat Wood Paneling Coatings
(EPA-453/R-06-004; 9/06)

Control Techniques Guidelines for Large Appliance Coatings
(EPA-453/R-07-004; 9/07)

Control Techniques Guidelines for Paper, Film, and Foil Coatings
(EPA-453/R-07-003; 9/07)

Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings
(EPA-453/R-08-006; 9/08)

As was done for the 2006 RACT SIP, District staff reviewed the District's permit and emissions inventory systems for its federal Clean Air Act plan, consulted with knowledgeable District staff, and subsequently determined that there are no stationary sources within Ventura County for the four CTG categories listed above. The District does not anticipate these sources in the future. If such sources locate in the county, they will be subject to the District's New Source Review requirements, which are more stringent than RACT.

Conclusion

Since there are no stationary sources in Ventura County for the four CTG categories listed above, negative declarations for these CTG categories are appropriate.

RACT SOURCE CATEGORIES WITH SOURCES IN VENTURA COUNTY BUT WITH EMISSIONS BELOW THE CTG APPLICABILITY THRESHOLDS

RACT Source Category

Miscellaneous Industrial Adhesives

RACT Guidance Document

Control Techniques Guidelines for Offset Miscellaneous Industrial Adhesives (EPA-453/R-08-005; 9/08)

The 2008 CTG for miscellaneous industrial adhesives provides control recommendations for reducing VOC emissions from miscellaneous industrial adhesives and adhesive primer application processes. The miscellaneous industrial adhesives product category includes adhesives (including adhesive primers used in conjunction with certain types of adhesives) used at industrial manufacturing and repair facilities for a wide variety of products and equipment that operate adhesives application processes. The miscellaneous industrial adhesives product category does not include adhesives that are addressed by CTGs already issued for categories listed under CAA Section 183(e) or by earlier CTGs. These include the CTGs issued under Section 183(e) for aerospace coatings; metal furniture coatings; large appliance coatings; flat wood paneling coatings; paper, film, and foil coatings; offset lithographic printing and letterpress printing; and flexible package printing. Coil coating, fabric coating, and rubber tire manufacturing were not listed under CAA Section 183(e). However, they were the subject of earlier CTGs, which address adhesives used in those processes.

As stated in the CTG, EPA recommends that the control approaches discussed in Section VI of the CTG apply to each miscellaneous industrial adhesive application process at a facility where the total actual VOC emissions from all miscellaneous industrial adhesive application processes at that facility, including related cleaning activities, are equal to or exceed 6.8 kg/day (15 lb/day), or an equivalent level such as 2.7 tons per 12-month rolling period, before consideration of controls. EPA does not recommend these control approaches for facilities that emit below this level because of the very small VOC emission reductions that can be achieved. The recommended threshold level is equivalent to the evaporation of approximately 2 gal/day of solvent. Such a level is considered to be an incidental level of solvent usage that could be expected even in facilities that use low-solvent adhesives, such as radiation cured adhesives.

District Rule 74.20, Adhesives and Sealants, reduces ROC emissions by limiting the ROC content of adhesives, sealants, adhesive primers, and sealant primers. Solvent cleaners, which are the largest source of ROC emissions at these facilities, are regulated by ROC content and/or ROC composite partial vapor pressure.

An important aspect of Rule 74.20 is its applicability to much smaller sources than those recommended by the CTG. Bonding operations using adhesives in Ventura County that emit over 200 lb/yr of ROC are required to meet all the requirements in the rule, and are required to have APCD permits to enforce those requirements. This cutoff level is significantly lower than the 15 lb/day threshold in the CTG, which corresponds to 2.7 ton/yr of ROC. Consequently, all sixteen permitted adhesive operations in the county have actual ROC emissions much less than the CTG threshold, and thus none of the recommended control measures in the CTG apply to existing county sources. These sixteen adhesive operations, along with their ROC emissions, are presented below in Table 2. As can be seen from Table 2, ROC emissions associated with each of the facilities are below the CTG's applicability thresholds. It should be noted that the two largest sources in Table 2, Pentair and Perma Plaque, do not have any add-on controls and so the emissions shown for these sources are before controls.

Table 2
Industrial Adhesives Sources in Ventura County

Facility Name	SIC Code	Actual ROC Emissions (ton/yr)	Permitted ROC Emissions (ton/yr)
Aquaria	3231	-----*	1.50
Avica, Inc.	3728	-----*	< 200 lb/yr
California Amplifier	3663	1.02	-----
Drum Workshop	3931	0.12	-----
ERG International	2522	-----*	1.74
Freedom Designs	3842	0.75	-----
Milgard Manufacturing	3211	-----*	1.12
Pentair Pool Products	3648	1.87	-----
Perma Plaque	3999	2.19	-----
PTI Technologies	3728	0.10	-----
Record Technology	3652	-----*	0.03
Robbins Auto Top	3711	1.10	-----
Santa Maria Tire	7534	0.18	-----
SolarWorld Industries	3674	0.19	-----
Technicolor Home Entertainment Services	3652	0.01	-----
Waterway Plastics	3088	-----*	1.21

* Actual ROC emissions not available, so permitted ROC emissions are provided for information purposes

Conclusion

None of the adhesive operations in Ventura County are subject to the 2008 CTG for miscellaneous industrial adhesives because their emissions are below the CTG

applicability thresholds and, therefore, a negative declaration for this CTG category is appropriate.

RACT Source Category

Flexible Package Printing

RACT Guidance Document

Control Techniques Guidelines for Flexible Package Printing
(EPA-453/R-06-003; 9/06)

The 2006 CTG for flexible package printing provides control recommendations for reducing VOC emissions from inks, coatings, adhesives and cleaning materials used in flexible packaging printing operations. Flexible packaging refers to any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

As stated in the CTG, EPA recommends applying the control recommendations for flexible packaging printing cleaning materials to flexible packaging printing operations that emit at least 6.8 kg/day (15 lb/day) actual emissions of VOC before consideration of emission controls. States and local agencies have discretion to consider the 15 lb/day VOC applicability level, an equivalent applicability level expressed on a monthly basis (e.g., 450 lb/month), an equivalent applicability level expressed on a 12-month rolling basis (e.g., 3 tons per 12-month rolling period), or other applicability levels for their regulations.

The only facility in Ventura County that might conduct flexible package printing is the Proctor and Gamble facility in Oxnard, California, which manufactures consumer paper products. That facility conducts only very limited package printing. Product packages used at the Oxnard facility are preprinted at facilities outside the county, and only prints package date codes and related information printed on the packaging using large-format ink-jet printers. VOC emissions from this package printing operation are only 726 lb/yr (2 lb/day), which is far less than CTG applicability threshold.

Conclusion

The only package printing operation in Ventura County that might be subject to the 2006 CTG for flexible package printing falls below the CTG applicability thresholds and, therefore, a negative declaration for this CTG category is appropriate.

RACT Source Category

Metal Furniture Coatings

RACT Guidance Document

Control Techniques Guidelines for Metal Furniture Coatings
(EPA-453/R-07-005; 9/07)

The 2007 CTG for metal furniture coatings provides control recommendations for reducing VOC emissions from metal furniture coating operations. Such coatings include paints, sealants, caulks, inks, adhesives, and maskants. Metal furniture coatings provide a covering, finish, or functional or protective layer, and can also provide a decorative finish to metal furniture.

The metal furniture coatings product category under section 183(e) of the CAA includes the coatings that are applied to the surfaces of metal furniture for decorative, protective, and functional purposes. A metal furniture substrate is the furniture or components of furniture constructed entirely or partially from metal. Metal furniture includes, but is not limited to, the following types of products: household, office, institutional, laboratory, hospital, public building, restaurant, barber and beauty shop, and dental furniture, as well as components of these products. Metal furniture also includes office and store fixtures, partitions, shelving, lockers, lamps and lighting fixtures, and wastebaskets. Metal furniture coatings include paints and adhesives and are typically applied without a primer. Higher solids and powder coatings are used extensively in the metal furniture surface coating industry

In terms of applicability, EPA recommends that the control approaches discussed in Section VI of the CTG apply to each metal furniture surface coating unit at a facility where the total actual VOC emissions from all metal furniture coating operations, including cleaning activities, are equal to or exceed 6.8 kg/day (15 lb/day), or an equivalent level such as 2.7 tons per 12-month rolling period, before consideration of controls. EPA does not recommend these control approaches for facilities that emit below this level because of the very small VOC emission reductions that can be achieved. The recommended threshold level is equivalent to the evaporation of approximately 2 gal/day of solvent. Such a level is considered an incidental level of solvent usage that could be expected even in facilities that use very low-solvent coatings, such as powder or UV cure.

There are four metal furniture manufacturers in Ventura County. These four facilities, along with their VOC emissions, are presented below in Table 3. As can be seen from Table 3, actual ROC emissions from all of the facilities are below the CTG's applicability thresholds.

Table 3
Average Actual ROC Emissions from Metal Furniture Coating Facilities Subject to VCAPCD Rule 74.12

Permit	Company	Actual ROC Emissions* lb/hr	lb/day	ton/yr
0196	Originals 22	0.464	3.713	0.483
0651	ERG International	0.122	0.975	0.127
1174	Hanson Lab Furniture	0.387	3.095	0.402
1335	Artistic Design	1.826	14.607	1.899

* Calculations assume 2,080 hr/yr of operation and 8 hr/day.

Actual emission calculations for the facilities listed in Table 3 are based on 2,080 hr/yr and one work shift of 8 hr/day. Artistic Design has actual average daily emissions of 14.607 lb/day, very near the CTG's applicability threshold of 15 lb/day.

District staff contacted Artistic Design and verified that they operate only one shift per day. The 14.6 lb/day estimate based on actual material use from 1999 through 2008 (with 2000 missing). If average material use from 2005 through 2008 is used, average ROC emissions are lowered to 1.0 ton/yr and 7.69 lb/day, which are lower than the CTG applicability threshold. In any event, Rule 74.12 is more stringent overall than the CTG and two comparable rules.

Conclusion

None of the metal furniture manufacturers in Ventura County are subject to the 2007 CTG for metal furniture coating because their emissions are below the CTG applicability thresholds and, therefore, a negative declaration for this CTG category is appropriate.

RACT Source Category

Fiberglass Boat Manufacturing Materials

RACT Guidance Document

Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials (EPA-453/R-08-004; 9/08)

The 2008 CTG for fiberglass boat manufacturing provides control recommendations for reducing VOC emissions from the use of gel coats, resins, and materials used to clean application equipment used in fiberglass boat manufacturing operations. It applies to facilities that manufacture hulls or decks of boats from fiberglass, or build molds to make fiberglass boat hulls or decks (hereinafter referred to as "fiberglass boat manufacturing facilities").

The CTG recommendations do not extend to facilities that only manufacture parts of boats (such as hatches, seats, or lockers), or boat trailers, but do not manufacture hulls or decks of boats from fiberglass, or build molds to make fiberglass boat hulls or decks. If a facility manufactures hulls or decks, or molds for hulls or decks, then the manufacture of all other fiberglass boat parts, including small parts such as hatches, seats, and lockers are covered. The CTG's recommended control approaches also do not extend to surface coatings applied to fiberglass boats, and do not apply to industrial adhesives used in the assembly of fiberglass boats. Surface coatings for fiberglass and metal recreational boats (pleasure craft) are addressed in the CTG for miscellaneous metal parts and plastic parts surface coating. Industrial adhesives used in boat assembly are addressed in the CTG for miscellaneous industrial adhesives. Polyester resin putties used to assemble fiberglass parts, however, are not considered adhesives and are addressed in the CTG.

As discussed in the CTG, EPA does not recommend the control approaches discussed in Section VI of the CTG for facilities that emit below 6.8 kg/day because of the very small VOC emission reductions that could be achieved. Such a level is considered to be very low within the fiberglass boat manufacturing industry and is expected only from facilities producing only small numbers of small boats (such as specialty kayaks or canoes).

There are two fiberglass boat manufacturing facilities in Ventura County. These facilities, along with their VOC emissions, are presented in Table 4. The CTG does not apply to these facilities because their ROC emissions are below the CTG applicability thresholds.

Table 4
Average Actual ROC Emissions from
Fiberglass Boat Manufacturing

Permit	Company	Actual ROC Emissions* lb/hr	lb/day	ton/yr
00433	Anacapa Marine Services	0.037	0.300	0.039
01083	Ventura Harbor Boatyard	0.024	0.195	0.025

* Calculations assume 2,080 hr/yr of operation and 8 hr/day.

There are three other active boat manufacturing facilities in Ventura County, Electra Craft in Westlake Village (Permit No. 7360), and two Anchors Way Marine Centers in the Cities of Ventura and Oxnard (Permit Nos. 253 and 1391, respectively). The CTG does not apply to Electra Craft because the hulls and decks assembled at the facility are made outside of Ventura County. The CTG also does not apply to the two Anchors Way Marine Centers because neither uses polyester resin material. Four other boat building permits in the county are inactive at this time.

Conclusion

None of fiberglass boat manufacturers in Ventura County are subject to the 2008 CTG for fiberglass boat manufacturing because their emissions are below the CTG applicability thresholds and, therefore, a negative declaration for this CTG category is appropriate.

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ATTACHMENT 2
VENTURA COUNTY APCD
2009 RACT CERTIFICATIONS

RACT Source Category

Industrial Cleaning Solvents

RACT Guidance Document

Control Techniques Guidelines for Industrial Cleaning Solvents
(EPA-453/R-06-001; 9/06)

Background

In September 2006, EPA published a CTG for Industrial Cleaning Solvents. The CTG provides control recommendations for reducing VOC emissions from industries that use organic solvents used to remove contaminants such as adhesives, inks, paint, dirt, soil, oil, and grease. Contaminants are removed from parts, products, tools, machinery, equipment, vessels, floors, walls, and other work production related work areas for a variety of reasons including safety, operability, and to avoid product contamination.

The recommended measures for controlling emissions of VOC from the use, storage, and disposal of industrial cleaning solvents includes work practice standards, limitations on VOC content of the cleaning materials, and an optional alternative limit on composite vapor pressure of the cleaning materials. They also include the use of add-on controls with an overall emission reduction of at least 85 percent by mass.

In terms of applicability, EPA recommends applying the control recommendations contained in the CTG to facilities that emit at least 6.8 kg/day (15 lb/day) of VOC from solvent cleaning activities before consideration of controls in an ozone nonattainment area. Moreover, EPA also recommends exclusions from CTG applicability those industries relevant to the product categories listed for regulation under CAA Section 183(e).

In Ventura County, solvent cleaning sources operations are regulated by several individual District rules, which cover all the product categories listed for regulation under CAA Section 183(e). In addition, Ventura County has Rule 74.6, Surface Cleaning and Degreasing, that regulates those solvent cleaning operations not covered by other source-specific rules.

Evaluation

In general, all coating operations, which includes spray gun cleaning, are regulated by source-specific rules, while parts cleaning operations are regulated by Rule 74.6. This rule has a default VOC content limit for solvent cleaning of 25 g/l, which is more

stringent than the 50 g/l RACT requirement for parts cleaners recommended by the CTG. Furthermore, Ventura County APCD currently permits all cleaning operations where annual VOC emissions exceed 200 lb/yr. A survey of all permitted sources in the county indicates that these operations may be classified into at least one of the following categories:

1) Facility that emits less than 15 lb/day of VOC before consideration of controls.

2) Subject to one of the VCAPCD rules that includes product categories regulated under CAA Section 183(e).

3) Subject to VCAPCD Rule 74.6, Surface Cleaning and Degreasing.

Although Rule 74.6 contains a vapor pressure limit of 33 mm Hg at 20^{o}C for application equipment cleanup of coatings, adhesives, inks or resins, or for cleaning of electronic components or aerospace components, this requirement applies to operations that are excluded by the CTG, including categories listed for regulation under CAA Section 183(e), categories with specific exemptions under Bay Area AQMD Rule 8-4-16, categories subject to specific rules and exemptions under Bay Area AQMD Rule 8-4-117, or categories with special limits outlined in South Coast AQMD Rule 1171.

All of the industrial solvent cleaning operations in Ventura County meet CTG control recommendations, or fall within the exclusions outlined in the guidelines. This includes product categories listed for regulation under CAA Section 183(e), categories with specific exemptions under Bay Area AQMD Rule 8-4-16, categories subject to specific rules and exemptions under Bay Area AQMD Rule 8-4-117, or categories with special limits outlined in South Coast AQMD Rule 1171.

Conclusion

Ventura County APCD rules governing industrial solvent cleaning operations meet RACT requirements as recommended by the September 2006 CTG for industrial cleaning solvents.

RACT Source Category

Lithographic Printing and Letterpress Printing

RACT Guidance Document

Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002; 9/06)

Background

The EPA issued a CTG document in September 1993 entitled *Control of Volatile Organic Compound Emissions from Offset Lithographic Printing* and an alternative control techniques (ACT) document on offset lithographic printing in June 1994. At the time, these two documents established RACT guidelines for ozone nonattainment areas such as Ventura County. In September 2006, EPA published an updated CTG for Offset Lithographic Printing and Letterpress Printing.

Letterpress printing and offset lithographic printing have several important similarities, including similar sources of VOC emissions and similar available VOC control approaches. "Lithographic printing" is a printing process where the image and non-image areas are chemically differentiated; the image area is oil receptive, and the non-image area is water receptive. This method differs from other printing methods, where the image is a raised or recessed surface. "Offset lithographic printing" is a printing process that transfers the ink film from the lithographic plate to an intermediary surface (blanket), which, in turn, transfers the ink film to the substrate.

The CTG recommends three mechanisms to reduce VOC emissions from offset lithographic printing and letterpress printing. These options are add-on controls, process modifications or work practices, and material reformulation or substitution. The recommended level of control for VOC emissions from heatset dryers is either 90 or 95 percent control efficiency, depending on the control device's installation date.

In terms of applicability, EPA recommends that the control options discussed in the CTG for cleaning materials and fountain solutions apply to any offset lithographic printing operation where the emissions associated with all aspects of the operation equal or exceed 6.8 kg/day (15 lb/day) actual emissions of VOC, or an equivalent level, before consideration of controls.

EPA further recommends that the options for fountain solutions not be applied to sheet-fed presses with maximum sheet size of 11x17 inches or smaller, or to any press with total fountain solution reservoir of less than one gallon. These exclusions are included because the recommended VOC (alcohol or alcohol substitute) content levels associated with such presses would yield a small emission reduction relative to the cost of achieving the reduction (e.g., changing and maintaining rollers).

Similarly, EPA recommends that the control approaches for cleaning materials discussed in the CTG apply to any letterpress printing operation where actual VOC emissions associated with all aspects of the operation equal or exceed 6.8 kg/day (15 lb/day), or an equivalent level, before consideration of controls. These control options include: 1) limits on the VOC composite vapor pressure of cleaning materials; and 2) limits on the VOC content of cleaning materials, with an exclusion of 110 gal/yr of cleaning materials, which meet neither the low VOC composite vapor pressure recommendation nor the lower VOC content recommendation and work practices.

EPA recommends a different applicability threshold for heatset web offset lithographic printing and letterpress printing operations. Specifically, EPA recommends applying the add-on control recommendations for heatset web offset lithographic printing operations and heatset web letterpress printing operations only to those presses with potential to emit from the dryers, prior to controls, of at least 25 ton/yr of VOC (petroleum ink oil) from heatset inks.

EPA also recommends providing printers with the option of using an enforceable limitation on potential emissions to keep an individual press below this 25 ton/yr potential to emit threshold. Guidance on limiting potential to emit from printing operations is provided in the technical support document (TSD) for Title V Permitting of Printing Facilities (see Appendix A). EPA believes add-on control for heatset presses with potential to emit below 25 ton/yr is too costly for the emission reduction that would be achieved. EPA also recommends excluding heatset presses used for book printing and excluding heatset presses with a maximum web width of 22 inches or less from the add-on control options. EPA believes add-on control for such heatset presses is too costly relative to the emission reduction that would be achieved.

Rule 74.19, Graphic Arts, limits ROC emissions from graphic arts operations. This rule was last amended on November 11, 2003, to make clerical corrections and to make the rule more consistent with other District source-specific rules. On April 10, 2001, the rule was amended to satisfy state best available retrofit control technology requirements and federal RACT requirements. This analysis will evaluate Rule 74.19, Graphic Arts, to determine if it meets RACT based on the latest recommendations from the 2006 CTG.

Evaluation

Rule 74.19 reduces ROC emissions by limiting the ROC content of inks, coatings, adhesives, and fountain solutions used in graphic arts operations. Solvent cleaners, which are the largest source of ROC emissions at these facilities, are regulated by ROC content and/or ROC composite partial vapor pressure.

An important aspect of Rule 74.19 is its applicability to much smaller sources than those recommended by the CTG. Graphic art sources in Ventura County that emit over 200 lb/yr of ROC are required to meet all the requirements in the rule and must have APCD

permits. This cutoff level is significantly lower than the 15 lb/day (2.7 ton/yr) of ROC applicability threshold recommended by the CTG.

The impact of this more stringent cutoff level on ROC emissions from graphic arts operations in the county can be seen in the list in Table 5 of all currently permitted lithographic printing and letterpress printing sources in the county. Table 5 shows that only the four largest sources would have been controlled by the CTG compared to the twenty-nine sources listed in the table.

The twenty-five smaller sources controlled by Rule 74.19, but excluded from the CTG, emit 16.8 ton/yr of ROC. If you assume that Rule 74.19 controls these sources by 30 percent, then Rule 74.19 reduces actual emissions by at least 7 ton/yr more than the CTG. This is a conservative estimate since EPA assumes 70 percent control effectiveness for uncontrolled sources.

Another important difference between Rule 74.19 and the CTG is that the CTG recommends a 110 gal/yr cleaning solvent exemption per source. Rule 74.19 does not allow this exemption, and the resulting emissions reduced by Rule 74.19 are about 3 ton/yr. Thus, the total emissions reduced by Rule 74.19, when compared to the CTG, are at least 10 ton/yr of actual ROC emissions based on these different exemption levels.

Rule 74.19's 80 g/l (8 percent) VOC limit for fountain solutions is less stringent than the Lithographic and Letterpress CTG's recommendation of 50 g/l (5 percent) alcohol or alcohol substitutes for sheet-fed offset lithographic printing. The VOC Blue Book allows higher cutoffs than the CTG if emissions are <5 percent of the inventory. Fountain solution emissions are larger than 5 percent of the inventory, and there is no backstop in the permits, which allows fountain solutions with VOC up to the rule limits. However, the alcohol limit does not apply to sources in Ventura County because they all use alcohol substitutes, most commonly certain glycol ethers. These additives have high boiling points and lower volatilities than traditional fountain solutions and are incorporated in small quantities (from 2 to 4 ounces per gallon of water) to produce a final mixed fountain solution less than 30 g/l.

Table 5
Lithographic Printing and Letterpress Printing Sources in Ventura County (Sorted by Actual ROC Emissions)

Facility Name	APCD Permit Number	Actual ROC Emissions (ton/yr)	Type of Printing	SIC Code
Greater than 2.7 tons/yr				
Crockett Graphics	0836	5.9	Lithography	2653
Ventura County Star	7067	5.1	Lithography	2752
Jano Graphics	7277	4.8	Lithography	2752
Ventura Printing	1143	3.0	Lithography	2759
Less than 2.7 tons/yr				
Holden Color	7205	2.6	Lithography	2752
Custom Printing	7243	1.5	Lithography	2752
Clarks Printing	7270	1.3	Lithography	2759
Trend Graphics	7658	1.2	Lithography	2752
Bestforms	7047	1.1	Lithography/Letterpress	2752
Sir Speedy	7046	0.8	Lithography	2752
Fausset Printing	7290	0.8	Lithography	2752
Basic Business Forms	1059	0.7	Lithography/Letterpress	2752
Herald Printing	7041	0.7	Lithography	2759
Ace Graphics	7084	0.6	Lithography	2752
TFP Data	7074	0.5	Lithography	2752
Vanguard Printing	7283	0.5	Lithography	2752
AA Printing	7347	0.4*	Commercial Printing	2750
Amp Graphics	7236	0.4*	Lithography	2752
John Devine Printing	7042	0.4*	Lithography	2759
Ojai Printing	7291	0.4*	Lithography	2752
Precision Tag and Label	0568	0.4*	Lithography	2752
Print N Image	7278	0.4*	Lithography	2752
Quickprint Plus	7044	0.4*	Lithography	2759
Signature Graphics	7309	0.4*	Lithography	2752
The Printing Press	7062	0.4	Lithography	2752
Ticket Factory	7156	0.4*	Letterpress	2752
Coast Index	7082	0.3	Lithography/Screen	2752
Arms Printing	7115	0.1	Commercial Printing	2759
Flyer Web Printing	7234	0.1	Lithography	2752
Total Actual Emissions		**35.6**		

* Actual ROC emissions from AA Printing, Amp Graphics, John Devine Printing, Ojai Printing, Precision Tag & Label, Print N Image, Quickprint Plus, Signature Graphics, and Ticket Factory, were estimated based on graphics arts operations of similar size.

In any case, Rule 74.19 overall is more stringent than the CTG and, and as noted above, achieves an additional 10 tons more emission reductions than would the CTG. Moreover, the entire rule is in the SIP and is federally enforceable. Staff estimated the potential lost emissions for the largest sources if they increase their fountain solution emissions up to the Rule 74.19 limits. The potential loss was less than one ton of ROC per year from all facilities. This means that Rule 74.19 is still significantly more effective than the CTG, even considering the difference in the fountain solution limits.

RACT Recommendation for Heatset Web Offset Printing

The CTG recommends add-on controls for heatset web offset lithographic printing and letterpress printing operations where the potential to emit is at least 25 ton/yr of ROC from heatset inks prior to the installation of controls. The source with the largest potential emissions in the county is the Ventura County Star newspaper with permitted emissions of 10.41 ton/yr of ROC. Thus, no existing sources in the county would be subject to this requirement. Any new sources would be subject to VCAPCD Rule 26.2, New Source Review, which requires best available control technology (BACT) for all new sources and emission offsets for any ROC or NOx sources where the potential to emit is greater than or equal to 5 ton/yr. These new source review requirements are much more stringent than the RACT recommendation in the CTG.

RACT Recommendation for Solvent Cleaners

Another RACT recommendation to reduce ROC emissions is to require the use of low-vapor pressure or low-ROC content solvent cleaners. Examples include blanket washes, roller washes, plate cleaners, metering roller cleaners, impression cylinder cleaners, rubber rejuvenators, and other cleaners used for cleaning a press or press parts. The RACT recommendation for cleaning materials is an ROC composite vapor pressure less than 10 mm Hg at 20^{o}C, or cleaning material containing less than 70 weight percent ROC. The cleaning requirements in Rule 74.19 are summarized in Table 6.

The most common cleaners used in lithographic printing are the blanket and roller washes. For these two cleaning applications, the Rule 74.19 vapor pressure requirement is identical to the CTG at 10 mm Hg at 20^{o}C, but the ROC content option at 2.5 lb/gal (about 33 percent ROC by weight) in Rule 74.19 is more stringent than the 70 percent by weight in the CTG. Another significant difference is the requirement for the repair and maintenance cleaners used for general press cleaning and repair. Rule 74.19 limits these cleaners to an ROC content of 50 g/l without the option of using a low vapor pressure cleaner. Although the cleaner requirements of Rule 74.19 are more stringent than the CTG, an estimate of emission savings could not be easily calculated given the available data in the permit files.

Table 6
Rule 74.19, Graphic Arts Solvent Cleaning Requirements

Solvent Cleaning Activity	Limits ROC g/l (lb/gal)		Limits ROC Composite Partial Pressure mm Hg @ 20°C
a. Surface Preparation	70 (0.58)		Not Applicable
b. Repair and Maintenance Cleaning	50 (0.42)		Not Applicable
c. Cleaning of Ink Application Equipment			
1) General, unless listed below	100 (0.83)	AND	3
2) Lithographic or Letterpress Printing			
i) Roller Wash	300 (2.5)	OR	10
ii) Blanket Wash	300 (2.5)	OR	10
iii) Metering Roller Cleaner	300 (2.5)	OR	25
iv) Plate Cleaner	300 (2.5)	OR	25

Conclusion

Ventura County APCD Rule 74.19 meets or exceeds the RACT recommendations in the 2006 CTG for offset lithographic printing and letterpress printing.

RACT Source Category

Miscellaneous Metal and Plastic Parts Coatings

RACT Guidance Document

Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003; 09/08)

Background

In September 2008, EPA published a CTG for Miscellaneous Metal and Plastic Parts Coating. The CTG provides control recommendations for reducing VOC emissions from the use of coatings applied to miscellaneous metal products and plastic parts. The miscellaneous metal product and plastic parts surface coatings categories under Section 183(e) of the CAA includes coatings that are applied to a wide range of metal and plastic parts and products. Such parts or products are constructed either partially or entirely of metal or plastic.

Miscellaneous metal product and plastic parts surface coatings serve decorative, protective, and functional purposes. Coatings protect metal parts from corrosion by providing resistance to moisture, heat, and sometimes the outdoor elements. Plastic parts may be coated to provide color, texture, or protection, thus improving appearance and durability, and can also function to attenuate electromagnetic interference/radio frequency interference signals, and to conceal mold lines and flaws in substrate surfaces.

There are two general emission control techniques for reducing VOC emissions from miscellaneous metal product and plastic parts coatings: pollution prevention measures, and emission capture and add-on control systems. Pollution prevention is the most prevalent control technique being used by the miscellaneous metal product and plastic parts surface coating facilities. Add-on control systems are available to these facilities, but few facilities utilize this control technique.

In terms of applicability, the CTG recommends that the control approaches suggested in the CTG apply to each miscellaneous metal product and plastic parts surface coating unit at a facility where the total actual VOC emissions from all miscellaneous metal product and plastic part surface coating operations, including related cleaning activities, at the facility are equal to or exceed 6.8 kg/day (15 lb/day), or an equivalent level of 2.7 tons per 12-month rolling period, before consideration of controls. The CTG does not recommend the control approaches for facilities that emit below that level because of the very small VOC emission reductions that could be achieved.

The District rule applicable to this CTG is Rule 74.12, Surface Coating of Metal Parts and Products. This RACT analysis will evaluate Rule 74.12 to determine if it meets RACT based on the latest recommendations from the 2008 CTG.

Evaluation

Rule 74.12 controls ROC emissions from metal parts and product coating operations through ROC content limits and transfer efficiency requirements. It does not apply to product coating operations regulated by other District coating rules such as architectural coatings (Rule 74.2), aerospace components (Rule 74.13), motor vehicles (Rule 74.18), or marine and freshwater vessels (Rule 74.24). The rule also controls ROC emissions from materials used for surface preparation and cleanup.

There are five metal coating facilities in Ventura County with ROC emissions above the CTG applicability thresholds subject to Rule 74.12. These facilities are presented below in Table 7.

Table 7
Average Actual ROC Emissions from Miscellaneous Metal Parts Coating Facilities Subject to VCAPCD Rule 74.12

Facility Name	APCD Permit Number	Actual ROC Emissions* ton/yr	lb/day	Business Activity
A-1 Truck & Equipment	0207	2.83	21.80	Motor Vehicle Repair and Blasting
Bend-Pak, Inc.	0505	2.56	19.67	Auto Repair Equipment Mfgr.
G.I. Rubbish Company	7086	3.88	29.85	Trash Collection
Haas Automation	7226	2.36	18.13	CNC Machine Tool Mfgr.
Weatherford Oil Country	7297	2.09	16.09	Oil Production Tool Mfgr.

* Calculations assume 2080 hr/yr of operation and 260 day/yr.

A-1 Truck and Equipment is a facility that specializes in coating in-use heavy-duty government equipment. The CTG recommends that "state RACT rules provide facilities that coat bodies and/or body parts for new heavier vehicles the option of meeting either the state RACT requirements for miscellaneous metals and plastic parts coatings or the state RACT requirements for auto and light-duty truck coatings." This facility does not coat new vehicles and Rule 74.12 does not apply; the applicable District rule is Rule 74.18, Motor Vehicle and Mobile Equipment Coating Operations. Therefore, the CTG does not apply to this operation.

Since actual emissions from the four applicable sources in Table 7 exceed the 15 lb/day threshold, the analysis of Rule 74.12 is relevant.

For plastic parts coating operations in Ventura County, no source has actual emissions that exceed either the 2.7 ton/yr or 15 lb/day thresholds. See Table 8 for details.

Table 8
Average Actual ROC Emissions from All Coating Operations that Include Plastic Parts in Ventura County

Facility Name	APCD Permit Number	Actual ROC Emissions ton/yr	Actual ROC Emissions lb/day	Business Activity
Perma Plaque Corp.	0523	0.36	2.77	Plastic to Wood Adhesives & Coating
Data Exchange Corp.	0650	0.23	1.78	Metal & Plastic Parts Mfgr. & Coating
Royal Coatings	0712	1.06	8.12	Metal & Plastic Parts Coating
J & A Manufacturing	1106	1.38	10.63	Metal & Plastic Parts Coating
WM J Matson Company	8017	0.01	0.60*	Metal & Plastic Parts Coating

* Estimated actual based on 15 gallons of material used during 2009

Actual emissions in Table 8 for the WM Matson Company are based on 15 gallons of material used during 2009. WM Matson is a new facility that commenced operations in Ventura County in February 2009. The only inspection of the facility occurred on March 25, 2009. Being such a new facility, no meaningful actual emissions information was available at that time. In August 2009, staff obtained six months of actual surface coating material data from WM Matson. Projecting this material out to a year, staff estimates that total facility ROC emissions for 2009 will be 0.38 ton/yr and 2.93 lb/day. These estimates are less than the CTG thresholds.

So far in 2009, WM Matson has not coated any plastic parts. Staff has estimated that 15 gallons of material may be used for plastic parts during the remainder of 2009. On this basis ROC emissions for plastic parts coating for 2009 will be 0.01 ton/yr and 0.60lb/day. These amounts are less than the CTG thresholds.

In any case, WM Matson coats parts for the aerospace industry, which is regulated by Rule 74.13. Plastic parts are not excluded from Rule 74.13. Therefore, plastic aerospace parts coating operations are subject to Rule 74.13. This is true for other plastic parts coating operations in Ventura County as well.

The September 2008 CTG recommends three alternatives for the control of ROC emissions from miscellaneous metal parts:

1) VOC content limits for each coating category based on the use of low-VOC content coatings and specified application methods to achieve good transfer efficiency.

2) Equivalent VOC emission rate limits based on the use of a combination of low-VOC coatings, specified application methods, and add-on controls.

3) An overall VOC control efficiency of 90 percent for add-on controls. In April 2008, the District revised Rule 74.12 to raise the control efficiency requirement to 90 percent.

This analysis of Rule 74.12 will focus on coating ROC limits and other applicable rule requirements.

Table 9 lists the ROC emission limits in the CTG and the related limits in Rule 74.12, SCAQMD Rule 1107, and Bay Area AQMD Rule 8-19. As shown in Table 9, the Rule 74.12 limits are as, or more stringent than, those in the CTG. For the six CTG categories in which Rule 74.12 has no limit, either the "General, One Component" or "General, Multi-Component" limits would apply. These general categories are either equivalent in stringency or more stringent than the CTG limits.

Table 9
Comparison Between Misc. Metal and Plastic Coating CTG and VCAPCD Rule 74.12, SCAQMD Rule 1107 and BAAQMD Rule 8-19

	Metal Furniture CTG		VCAPCD Rule 74.12		SCAQMD Rule 1107		BAAQMD Rule 8-19	
	Baked	Air	Baked	Air	Baked	Air	Baked	Air
Coating Type	lb/gal	lb/gal	lb/gal	lb/gal	lb/gal	lb/gal	lb/gal	lb/gal
General, One Comp	2.3	2.8	2.3	2.3	2.3	2.3	2.3	2.8
General, Multi-Comp	2.3	2.8	2.3	2.8	2.3	2.8	2.3	2.8
Extreme Hi-Gloss	3.0	3.5	3.0	3.5	3.0	2.8	3.0	3.5
Extreme Performance	3.0	3.5	3.0	3.5	3.0	3.5	3.5	3.5
Heat Resistant	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5
Metallic	3.5	3.5	3.0	3.5	3.5	3.5	3.0	3.5
Pretreatment Coating	3.5	3.5	2.3	2.8	3.5	3.5	3.5	3.5
Solar Absorbent	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5
Camouflage	3.5	3.5	3.0	3.5	3.5	3.5	3.0	3.5
Etching Filler	3.5	3.5	3.5	3.5	3.5	3.5	---	---
High Perf. Arch.	6.2	6.2	3.5	3.5	3.5	3.5	3.5	3.5
High Temperature	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Mold Seal	3.5	3.5	3.5	3.5	3.5	3.5	---	---
Pan Backing	3.5	3.5	3.5	3.5	3.5	3.5	---	---
Silicone Release	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Vacuum Metalizing	3.5	3.5	3.5	3.5	3.5	3.5	---	---
Military Specification	2.3	2.8	---	---	2.3	2.8	---	---
Prefab Arch. 1 Comp.	2.3	3.5	---	---	2.3	2.3	---	---
Prefab Arch. Multi.	2.3	3.5	---	---	2.3	2.8	---	---
Touch Up	3.0	3.5	---	---	3.0	4.5	---	---
Repair	3.0	3.5	---	---	3.0	4.5	---	---
Electric Insulating Var.	3.5	3.5	---	---	3.5	3.5	---	---

Rule 74.12 transfer efficiency requirements include electrostatic application, operated at a minimum of 60 kV; flow coat application, dip coat application, high-volume, low-pressure application, hand application, or any other means demonstrated to achieve at least 65 percent transfer efficiency.

In lieu of complying with the specified ROC content limits, air pollution control equipment may be used provided the combined capture and control device efficiency reduces emissions by at least 90 percent by weight and approved by the District by an Authority to Construct and Permit to Operate. Rule 74.12's provisions regarding control device capture efficiency and coating transfer efficiency are the same or similar to those recommended by the CTG.

Rule 74.12 limits the ROC content of material used for substrate cleaning to no more than 25 g/l of material. It also limits material for either spray equipment cleaning or cleanup to an ROC content of not more than 25 g/l of material.

An important aspect of Rule 74.12 is its applicability to much smaller sources than those recommended by the CTG. Metal parts and product coating operations in Ventura County that emit over 200 lb/yr of ROC are required to meet the requirements in the rule, and are required to have APCD permits to enforce those requirements. This cutoff level is significantly lower than the 15 lb/day threshold in the CTG, which corresponds to 2.7 ton/yr of ROC.

A significant difference between the CTG and Rule 74.12 involves work practices for coating and cleaning activities. Rule 74.12 specifies that all ROC containing materials, including, but not limited to surface coatings, cleanup solvents, or surface preparation materials shall be stored in closed containers that are nonabsorbent and do not leak.

The CTG recommends more specific and extensive work practices for coating activities: 1) store all VOC-containing coatings, thinners, and coating-related waste materials in closed containers; 2) ensure that mixing and storage containers used for VOC-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing these materials; 3) minimize spills of VOC-containing coatings, thinners, and coating-related waste materials; and 4) convey VOC-containing coatings, thinners, and coating-related waste materials from one location to another in closed containers or pipes.

The CTG also recommends the following work practices for cleaning materials: 1) store all VOC-containing cleaning materials and used shop towels in closed containers; 2) ensure that storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials; 3) minimize spills of VOC-containing cleaning materials; 4) convey VOC-containing cleaning materials from one location to another in closed containers or pipes; and 5) minimize

VOC emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

Although the CTG recommendations for coating and cleanup work practices are more extensive than those in Rule 74.12, it does not contain VOC-content limits for substrate cleaning and cleanup activities as does Rule 74.12. Rule 74.12 specifies that no person shall use a material for substrate surface cleaning and for either spray equipment cleaning or cleanup that has an ROC content exceeding 25 g/l of material.

Rule 74.12 also contains several recordkeeping requirements to help ensure compliance with the rule. The CTG does not contain recordkeeping recommendations.

Conclusion

Ventura County APCD Rule 74.12 meets or exceeds the RACT recommendations in the 2008 CTG for miscellaneous metal and plastic parts coatings.

OVERALL RACT CONCLUSION

District staff found that all District rules applicable to the 2006, 2007, and 2008 CTGs meet or exceed RACT recommendations.