December 2, 2010

NOTICE OF WORKSHOP

FOR DISCUSSION OF PROPOSED AMENDMENTS TO RULE 67.4 – METAL CONTAINER, METAL CLOSURE AND METAL COIL COATING OPERATIONS

The San Diego Air Pollution Control District (District) will hold a public workshop to discuss proposed amendments to Rule 67.4 – Metal Container, Metal Closure and Metal Coil Coating Operations. Comments or questions may be submitted in writing before or made at the workshop, which is scheduled as follows:

DATE: **Thursday, January 13, 2011**

TIME: **9:00 a.m. to 10:00 a.m.**

PLACE: **San Diego Air Pollution Control District**
Main Conference Room
10124 Old Grove Road
San Diego, CA 92131

Air quality in San Diego County has substantially improved over the past two decades due to comprehensive efforts to reduce air pollutant emissions. Nevertheless, State and federal air quality standards for ozone are not met in the region. Consequently, emissions of air pollutants that form ozone, including volatile organic compounds (VOCs), must be reduced. State and federal laws require the District to update its rules to control VOC emissions from stationary sources as control technologies improve or control costs are reduced. Specifically, State law requires the District rules to reflect all feasible control measures that were implemented and proved successful for VOC emission sources in other California air districts.

Existing Rule 67.4 regulates VOC emissions from can and coil coating and related cleaning operations. The rule was last amended in 1996. During the last decade, many new materials with a lower VOC content used in these operations were introduced in the marketplace. The District is now proposing to amend the rule to reflect the availability of low VOC content cleaning materials and to generally update the rule, where necessary.

In summary, the proposed amendments will:

- Include a new section to require the use of high transfer efficiency coating application methods;

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- Reduce the VOC content limit for cleaning materials to 25 grams per liter unless some other specified cleaning and emission control equipment is used;

- Clarify record keeping requirements;

- Clarify and update existing definitions;

- Update the test methods for determining VOC content and exempt compounds contents of coatings, cleaning materials and the overall control efficiency of emission control systems.

The District requests that workshop participants bring their own copies of proposed amended Rules 67.4. Copies may also be downloaded from the District's website at http://www.sdapcd.org/homepage/public_part/workshops/public_workshops.pdf. Those without internet access may contact Janet McCue at (858) 586-2712. If you have any questions concerning the proposal, please contact Angela Durr at (858) 586-2753, Natalie Yates at (858) 586-2756 or Robert Reider at (858) 586-2640.

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Air Pollution Control District

RMA:RR:jlm

RULE 67.4. METAL CONTAINER, METAL CLOSURE AND METAL COIL COATING OPERATIONS (Effective 5/9/79: Rev. Adopted & Effective 5/15/96) (Amended and Effective (*date of adoption*))

(a) **APPLICABILITY**

(1) This rule applies to all metal container, metal closure and metal coil coating operations in which volatile organic compounds (VOCs) are employed

(2) Operations subject to this rule shall not be subject to Rule 66.1 or 67.3.

(b) **RESERVED**

(c) **DEFINITIONS** ~~(Rev. Effective 5/15/96)~~

For the purpose of this rule, the following definitions shall apply:

(1) **"Cleaning Material"** means a VOC containing material used for cleaning hands, tools, application equipment and work area.

(2) **"Closure"** means any metal component which is used to close or seal a container.

(3) **"Coating Line"** means an operation or process for applying, drying or oven baking and/or curing surface coatings, together with associated equipment including a coating applicator, flash-off area and oven.

(4) **"Coil"** means any flat metal sheets or strips that have been formed into rolls or coils for further industrial or commercial use.

(5) **"Container"** means any can, pail or drum.

(6) **"Drum"** means any manufactured or reconditioned cylindrical metal container that has ~~is~~ a capacity larger than 12 gallons but smaller than 110 gallons ~~capacity~~.

(7) **"End"** means a part of a container which is used for its closure after the container is filled with a product.

(8) **"End Sealing Compound"** means a compound which is coated onto a container closure and which functions as a gasket when the closure is assembled onto the container.

(9) **"Exempt Compound"** means the same as defined in Rule 2. ~~(Rev. Effective 5/15/96)~~

(10) **"Exterior Base Coating"** means a coating applied to the exterior of a container, body, closure or flat sheet to provide a protection to the metal or to provide background for any lithographic operation.

(11) **"Exterior Body Spray"** means a coating sprayed on the exterior of the container body to provide a decorative or protective finish.

(12) **"Food/Beverage Container"** means a metal container in which food or beverages intended for human consumption are packaged.

(13) **"High-Volume Low-Pressure (HVLP) Spray"** means a coating application method using a spray applicator and pressurized air which is designed to be operated and which is operated at an atomizing pressure between 0.1 and 10.0 psig, measured dynamically at the center of the applicator's air cap and at the applicator's air horns.

(~~13~~14) **"Interior Base Coating"** means a coating applied to the interior of a container body or end or flat sheet to provide a protective lining between the product and the container.

(~~14~~15) **"Interior Body Spray"** means a coating sprayed on the interior of the container to provide a protective film between the product and the container.

(~~15~~16) **"Letterpress Coating"** means an acrylate-based topcoat which is used for coating letterpress printing plates during the manufacture of such plates.

(~~16~~17) **"Lid"** means a reusable closure.

(~~17~~18) **"Metal Container, Metal Closure, and Metal Coil Coating"** means any coating containing VOCs applied by spray, roller or other means to the inside and/or outside of metal containers, drums, pails, lids, closures or to the surface of flat sheets, rolls, or coil for further industrial or commercial use.

(~~18~~19) **"Overvarnish"** means a coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

(~~19~~20) **"Pail"** means any manufactured or reconditioned cylindrical metal container with a capacity between one and ~~that is from one gallon to~~ 12 gallons, ~~capacity~~ and constructed of 29 gauge ~~or heavier~~ material or heavier.

(~~20~~21) **"Pet Food Container"** means a metal container in which food for animal (non-human) consumption is packaged.

(~~21~~22) **"Stationary Source"** means the same as defined in Rule 2~~0.1~~.

(~~22~~23) **"Three-Piece Container Side-Seam Spray"** means a coating sprayed on the exterior and/or interior of a welded, cemented or soldered seam to protect the exposed metal.

(~~23~~24) **"Two-Piece Container Exterior End Spray"** means a coating sprayed on the exterior bottom end of a container to provide protection to the metal.

(~~24~~25) **"Volatile Organic Compound (VOC)"** means the same as defined in Rule 2. ~~any volatile compound containing at least one atom of carbon, which may be emitted to the atmosphere during operations or activities subject to this rule, except methane, carbon monoxide, carbon dioxide, carbonic acid, ammonium carbonate, metallic carbides and carbonates, and exempt compounds.~~

(~~25~~26) **"VOC Content per Volume of Coatings, Less Water and Exempt Compounds"** means the same as defined in Rule 2. ~~weight of VOC per combined volume of VOC and coating solids and is calculated by the following equation~~

~~Ccvoc = (Ws - Ww - Wes) / (Vm - Vw - Ves)~~

~~where:~~

~~Ccvoc = VOC content of coating, less water and exempt compounds~~

~~Ws = weight of volatile compounds including water and exempt compounds~~

~~Ww = weight of water~~

~~Wes = weight of exempt compounds~~

~~Vm = volume of material including water and exempt compounds~~

~~Vw = volume of water~~

~~Ves = volume of exempt compounds~~

(~~26~~27) **"VOC Content per Volume of Cleaning Material"** means the same as defined in Rule 2, ~~weight of~~ "VOC Content per Volume of Material". ~~and is calculated by the following equation~~.

~~$C_m voc = (W_s - W_w - W_{es}) / V_m$~~

~~where:~~

~~$C_m voc$ = VOC content of material~~
~~W_s = weight of volatile compounds including water and exempt compounds~~
~~W_w = weight of water~~
~~W_{es} = weight of exempt compounds~~
~~V_m = volume of material including water and exempt compounds~~

(d) **STANDARDS**

(1) VOC Limits

Except as provided for in Section (e), a person shall not use or apply coatings on any coating line of the type designated below which contains VOCs in excess of the following limits at the point of application:

(i) Metal Container or Closure Coating Lines	Grams of VOC per liter of coating (less water and exempt compounds)
Sheet base coat (exterior and interior) and overvarnish	180
Two-piece container exterior base coat and overvarnish, and end spray	250
Container exterior body spray and exterior closure spray	250
Three-piece container side seam spray	660
End sealing compound:	
Food/Beverage Container:	20
Pet Food Container	20
Non-Food Container	20
Container interior body spray:	
Two-piece container	420
Three-piece container	310
Reconditioned drums, pails and lids:	
Exterior spray	420

Interior spray	510
New drums, pails and lids:	
Exterior spray	340
Interior spray	420

(ii)	Grams of VOC per liter of coating (less water and exempt compounds)
Coil Coating Line	
(A) Letterpress coatings	200
(B) Other coil coatings	200

(2) Coating Application Equipment

A person shall conduct coating operations subject to this rule by using only the following coating application methods:

(i) Electrostatic spray application; or

(ii) Flow coat application; or

(iii) Dip coat application; or

(iv) Roll coat; or

(v) Hand application methods; or

(vi) High-volume low-pressure (HVLP) spray. Facilities using an HVLP spray gun shall have available on site pressure gauges in proper operating condition to measure the air cap pressure or have available manufacturer's technical information regarding the correlation between the handle air inlet pressure and the air cap pressure. If the correlation option is used to demonstrate compliance, a handle air inlet pressure gauge will be required on site in proper operating condition to measure the handle air inlet pressure; or

(vii) Other coating application methods that are demonstrated to have transfer efficiency at least equal to one of the above application methods, and which are used in such a manner that the operating parameters under which they were demonstrated to achieve such transfer efficiency are permanent features of the method. Such coating application methods shall be approved in writing by the Air Pollution Control Officer prior to use.

(~~2~~3) Cleaning of Coating Application Equipment

A person shall not use VOC containing materials for the cleaning of coating application equipment used in operations subject to this rule unless~~:~~

(i) The VOC content of cleaning material is ~~contains~~ 25 ~~200~~ grams or less ~~of VOC~~ per liter of material; or

~~(ii) The cleaning material has an initial boiling point of 190°C (374°F) or greater; or~~

~~(iii) The solvent has a total VOC vapor pressure of 20 mm Hg or less, at 20°C (68°F);~~ or

(~~iv~~ii) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or

(iii~~v~~) The application equipment or equipment parts are cleaned in a container which is open only when being accessed for adding, cleaning, or removing application equipment or when cleaning solvent is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases; or

(~~vi~~iv) A system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes~~.; or~~

~~(vii) The combined usage of cleaning materials not complying with any of the standards described in Subsection (2)(i) through Subsection (2)(vi) above is less than 10 gallons each calendar month at a stationary source.~~

(e) **~~ADD-ON~~ CONTROL ~~DEVICE~~ EQUIPMENT**

(1) In lieu of complying with the provisions of Subsection (d)(1)~~,~~ and (d)(3) a person may use an air pollution control system which:

(i) has been installed in accordance with an Authority to Construct; and

(ii) includes an emission collection system which captures and transports organic gaseous emissions to an air pollution control device; and

(iii) has a combined VOC emissions capture and control device efficiency of at least 85 percent by weight.

(2) A person subject to the requirements of this section shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance (O&M) plan for the proposed emission control device and emission collection system. Such plan shall:

(i) identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(iii) such as temperature, pressure, and/or flow rate, and

(ii) include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) The Operation and Maintenance plan must be submitted to the Air Pollution Control Officer and receive approval prior to operation of the air pollution control equipment. A person subject to the requirements of this section shall implement the plan on approval of the Air Pollution Control Officer.

(f) **RECORD KEEPING**

~~(1)~~ Any person subject to the requirements ~~of Sections (d) or (e)~~ of this rule shall maintain records in accordance with the following:

~~(i) Maintain a current list coatings in use volatile organic compounds (VOCs) which provides all of the coating and VOC data necessary to evaluate compliance.~~

~~(ii) Maintain records on a monthly basis showing the types and amounts solvents used. for clean-up.~~

(1) Coating and Cleaning Materials

Any person subject to the requirements of Subsections (d)(1) and/or (d)(3) shall:

(i) Maintain a current list of coatings and cleaning materials in use. This list shall provide all the data necessary to evaluate compliance, including, but not limited to:

(A) Material name, manufacturer and manufacturer identification;

(B) Type and applicable coating category of each coating used as specified in Subsection (d)(1)(i) and (d)(1)(ii);

(C) VOC content, less water and exempt compounds, of coatings, as applied and VOC content of cleaning materials, as used.

(ii) Maintain monthly or daily records showing the amount of each coating, the applicable coating category and cleaning material used.

~~(2) Any person complying with the requirements of Subsection (d)(1)(i) shall maintain daily or monthly records showing the type and amount used of each coating, solvent used as thinner or diluent, and VOC-containing material.~~

(~~3~~2) Any person ~~complying with the requirements of Subsection (d)(1) by~~ using control equipment pursuant to Section (e) of this rule shall:

(i) ~~f~~For all materials not in compliance with Subsection (d)(1) of this rule, maintain daily records of the amount ~~used~~ of each material used ~~coating, solvent used as thinner or diluent, and VOC-containing material~~; and

(ii) ~~m~~Maintain daily records sufficient to document continuous compliance with Subsection (e)(1)(iii), including records of key system operating parameters as approved in the Operation and Maintenance plan.

~~Such~~ All records shall be retained on site for at least three years, and shall be made available to the District upon request.

(g) ~~VOC~~ **TEST METHODS**

When more than one test method or set of test methods are specified in this Section, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

(1) The VOC content of coatings containing more than 50 grams of VOC per liter and subject to Subsections (d)(1)(i) and (d)(1)(ii)(B) shall be determined by the Environmental Protection Agency (EPA) Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, 40 CFR Part 60, Appendix A) or by the South Coast Air Quality Management District (SCAQMD) Method 304 (Determination of Volatile Organic Compounds in Various Materials) as they exist on (*date of adoption*).

(2) Measurements of VOC content of coatings subject to Subsection (d)(1)(ii)(A) of this rule shall be conducted in accordance with San Diego Air Pollution Control District's Method 24D for Determination of Density, Total Volatile Matter Content, and Weight Solids of Surface Coatings Containing Photosensitive Reactive Diluents as it exists on (*date of adoption*).

(3) The VOC content of coatings containing 50 grams of VOC per liter or less, or cleaning materials shall be determined by the SCAQMD Method 313 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), or the SCAQMD Method 308 (Quantification of Compounds by Gas Chromatography) as they exist on (*date of adoption*).

(4) The content of methyl acetate, acetone and parachlorobenzotrifluoride

shall be determined in accordance with the ASTM Test Method D6133-02 (2008) (Standard Test Method for Acetone, p-Chlorobenzotrifluoride, Methyl Acetate or t-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph), or its most current version.

(5) Measurements of exempt compound content, other than determined in accordance with Subsection (g)(4), shall be conducted in accordance with the SCAQMD Test Method 303-91 (Determination of Exempt Compounds).

(6) Measurements of transfer efficiency pursuant to Subsection (d)(2)(vii) of this rule shall be conducted in accordance with the SCAQMD "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," as it exists on (*date of adoption*). The equivalency of coating application equipment pursuant to Subsection (d)(2)(vii) shall be determined by the SCAQMD " Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns" as they exist on (*date of adoption*).

(7) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(1)(iii) shall be determined by multiplying the capture efficiency of the emission collection system by the control efficiency of the air pollution control device. The control efficiency of the air pollution control device shall be determined using EPA Test Methods 25A and/or 18 (40 CFR Part 60, Appendix A) and in accordance with a protocol approved by the Air Pollution Control Officer. Capture efficiency of an emission collection system pursuant to Subsection (e)(1)(ii) shall be determined according to EPA Test Method 204 and technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995. Subsequent to the initial compliance demonstration period, appropriate key system operating parameters as approved by the Air Pollution Control Officer may be used as indicators of the performance of the emission control system.

(8) Other test methods which are determined to be equivalent to the test methods specified in this rule and approved, in writing, by the Air Pollution Control Officer,

California Air Resources Board, and EPA may be used in place of the test methods specified in this rule.

~~(1) Measurements of VOC content of coatings and cleaning materials subject to Subsections (d)(1)(i), (d)(1)(ii)(B), and (d)(2)(i) of this rule shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) as it exists on July 25, 1995.~~

~~(2) Measurements of VOC content of coatings subject to Subsection (d)(1)(ii)(A) of this rule shall be conducted and reported in accordance with San Diego Air Pollution Control District's Method 24D for Determination of Density, Total Volatile Matter Content, and Weight Solids of Surface Coatings Containing Photosensitive Reactive Diluents as it exists on July 25, 1995.~~

~~(3) Measurement of the control device efficiency subject to Subsection (e)(1)(iii) of this rule shall be conducted in accordance with EPA Methods 18 and/or 25A (40 CFR 60) as they exist on July 25, 1995 and in accordance with a protocol approved by the Air Pollution Control Officer.~~

~~(4) Measurement of the emission collection system capture efficiency subject to Subsection (e)(1) (ii) of this rule shall be determined according to EPA's technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995, using a protocol approved by the Air Pollution Control Officer. Subsequent to the initial compliance demonstration period, applicable key system operating parameters, as approved by the Air Pollution Control Officer, may be used as verification that capture efficiency has not diminished.~~

~~(5) Perfluorocarbon (PFC) compounds and other exempt compounds shall be assumed to be absent from a coating, or cleaning material subject to this rule unless a manufacturer of the material or a facility operator identifies the specific individual compound(s) present in the material and provides an EPA and ARB approved test method which can be used to quantify the specific compounds.~~

~~(6) Measurement of the initial boiling point of cleaning materials subject to Subsection (d)(2)(ii) shall be conducted in accordance with ASTM Standard Test Method D1078-86 for distillation range of volatile organic liquids.~~

~~(7) Calculation of total VOC vapor pressure for materials subject to Subsection (d)(2)(iii) of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures" as it exists on July 25, 1995. If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsection (d)(2)(iii), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-86. The solvent composition shall be determined using one of the following ASTM standard recommended practices: E168-92, E169-93 or E260-91. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-91 and D4457-85 and shall be used to~~

~~calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM Test Method D2879-86 shall be corrected for partial pressure of water and exempt compounds.~~