



Air Pollution Control Board

Greg Cox	District 1
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March 24, 2009

NOTICE OF WORKSHOP

FOR DISCUSSION OF PROPOSED NEW RULE 66 – MISCELLANEOUS SURFACE COATING OPERATIONS AND OTHER PROCESSES EMITTING VOLATILE ORGANIC COMPOUNDS AND REPEAL OF CURRENT RULE 66 – ORGANIC SOLVENTS

The San Diego County Air Pollution Control District (District) will hold a public meeting to discuss the adoption of new Rule 66 – Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds, and the repeal of existing Rule 66 – Organic Solvents. Comments and questions concerning the proposal may be submitted in writing before or made at the meeting, which is scheduled as follows:

DATE: Wednesday, May 6, 2009

TIME: 9:00 a.m. to 11:00 a.m.

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

San Diego County does not meet the National and State Ambient Air Quality Standards for ozone and is classified as an ozone nonattainment area. Both federal and State laws require the District to implement rules that regulate emissions of ozone precursors – volatile organic compounds (VOC) and nitrogen oxides.

Existing Rule 66 regulates VOC emissions from the usage of organic solvents in miscellaneous processes. It was approved by the Environmental Protection Agency and is included in the State Implementation Plan.

Initially adopted by the District in 1972, Rule 66 was the first rule to control VOC emissions from stationary sources in San Diego County. It is presently used as a "catch-all" regulation that applies to sources that are not covered by source-specific rules controlling VOC emissions, such as Rule 67.11 (Wood Products Coating Operations) and Rule 67.15 (Pharmaceutical and Cosmetic Manufacturing Operations). However, existing Rule 66 has become outdated and

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therefore the District proposes replacing it with new Rule 66 that reflects the latest VOC emission control strategies applicable to a variety of sources, contains limits for the VOC content of cleaning materials, and updated recordkeeping requirements and test methods.

The proposed rule contains provisions already being implemented in several California air districts and will help fulfill the District's commitment in the San Diego County Regional Air Quality Strategy to implement all feasible emission control measures as required by State law. Existing Rule 66 will be repealed upon the effective date of proposed new Rule 66, which is 12 months after its adoption.

Specifically, proposed new Rule 66 will:

- Require any operation resulting in VOC emissions and not covered by other District rules be controlled by air pollution control equipment unless the VOC emissions from this operation are less than 5 tons per year, excluding emissions from cleaning operations.
- Alternatively, allow a surface coating operation to comply with emission control requirements by using air-dried coatings with a VOC content not exceeding 420 grams per liter or baked coatings with a VOC content not exceeding 360 grams per liter.
- Require the use of surface preparation or solvent cleaning materials with a VOC content not more than 50 grams per liter (0.42 pounds/gallon) of VOCs, or having a composite vapor pressure 8 mm Hg at 20°C (68°F) or less.
- Specify coating application methods to be used and the requirements for cleaning of coating application equipment for surface coating operations subject to this rule.
- Provide operating parameters and requirements for air pollution control equipment if it is used by a facility.
- Exempt from all rule requirements the use of pesticides, research and development operations, or testing for quality control or quality assurance purposes, touch-up operations and stripping of cured inks, coatings and adhesives.
- Exempt from all rule requirements any operation that uses not more than 20 gallons per year of coatings or emits not more than 150 pounds/year of VOCs, provided that the specified records are kept.
- Exempt materials used for cleaning and surface preparation of aerospace components, including wipe cleaning from the VOC content limit provided these operations are not associated with surface coating operations and are in compliance with the requirements of Subsection (d)(4) of Rule 67.9 (Aerospace Coating Operations).
- Exempt materials used for cleaning of electronic or electrical components, medical devices, or precision optics components from the VOC content limit.

- List recordkeeping requirements for persons conducting operations subject to this rule.
- Require manufacturers, sellers or suppliers to provide specified information related to any VOC containing material that is used in an operation that may be subject to this rule.
- Provide definitions for major terms used in the rule.
- Update the test methods for determining compliance.
- Provide a compliance schedule for new and existing operations that are or may be subject to this rule.

If you would like a copy of proposed new Rule 66, please access the District's website at www.sdacpd.org under Rules and Regulations, Public Workshops, or call Janet McCue at (858) 586-2712. If you have any questions concerning the proposal, please contact Angela Durr at (858) 586-2753, Natalie Yates (858) 586-2756, or Rob Reider at (858) 586-2640.

A handwritten signature in cursive script that reads "Rosa Maria S. Abreu".

ROSA MARIA S. ABREU, Assistant Director
AIR POLLUTION CONTROL DISTRICT

RMA:RR:jl

RULE 66 MISCELLANEOUS SURFACE COATING OPERATIONS AND OTHER PROCESSES EMITTING VOLATILE ORGANIC COMPOUNDS (Adopted *(date of adoption)*; Effective *(12 months after date of adoption)*)

(a) **APPLICABILITY**

(1) This rule is applicable to all surface coating, solvent cleaning or other operations or processes that may result in emissions of volatile organic compounds (VOCs) and are not subject to or exempt from, the following rules:

- 67.0 - Architectural Coatings;
- 67.2 - Dry Cleaning Equipment Using Petroleum Based Solvents;
- 67.3 - Metal Parts and Products Coating Operations;
- 67.4 - Metal Container, Metal Closure and Metal Coil Coating Operations;
- 67.5 - Paper, Film and Fabric Coating Operations;
- 67.6.1 - Cold Solvent Cleaning and Stripping Operations;
- 67.6.2 - Vapor Degreasing Operations;
- 67.9 - Aerospace Coating Operations;
- 67.10 - Kelp Processing and Bio-Polymer Manufacturing Operations;
- 67.11 - Wood Products Coating Operations;
- 67.11.1 - Large Coating Operations for Wood Products;
- 67.12 - Polyester Resin Operations;
- 67.15 - Pharmaceutical and Cosmetic Manufacturing Operations;
- 67.16 - Graphic Arts Operations;
- 67.18 - Marine Coating Operations;
- 67.19 - Coatings and Printing Inks Manufacturing Operations;
- 67.20 - Motor Vehicle and Mobile Equipment Refinishing Operations;
- 67.21 - Adhesive Materials Application Operations;
- 67.24 - Bakery Ovens;
- 61.1 through 61.8 – Vapor Recovery Rules.

(2) Section (g) of this rule is applicable to any manufacturer, seller or supplier of any coating, coating component, solvent cleaning material, or any other VOC containing material that is used in an operation that may be subject to this rule.

(b) **EXEMPTIONS**

(1) This rule shall not apply to the following:

- (i) Surface coating or cleaning operations exclusively using hand-held non-refillable aerosol spray containers.

(ii) Any surface coating operation where 20 gallons or less of surface coatings are applied per consecutive 12-month period. To claim applicability of this exemption monthly coating usage records shall be maintained on site for three years and shall be made available to the District upon request.

(iii) Any surface coating or other VOC emitting operation where the total VOC emissions, excluding emissions from cleaning or surface preparation materials, are 150 lbs or less per consecutive 12-month period. To claim applicability of this exemption all records necessary to calculate VOC emissions shall be maintained on site for three years and shall be made available to the District upon request.

(iv) The use of pesticides, including insecticides, rodenticides or herbicides.

(v) Research and development operations or testing for quality control or quality assurance purposes.

(vi) Touch-up operations.

(vii) Stripping of cured inks, coatings and adhesives.

(2) Subsection (d)(1)(ii) shall not apply to:

(i) Any solvent cleaning, including wipe cleaning, of aerospace components not associated with a surface coating operation and provided that the cleaning material complies with the requirements of Rule 67.9, Subsection (d)(4).

(ii) Any solvent cleaning, including wipe cleaning, or surface preparation of electrical or electronic components, medical devices, or precision optics components.

(c) **DEFINITIONS**

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

(1) **"Aerospace Component"** means any raw material, partial or completed fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including mockups, test panels and prototypes.

(2) **"Air-Dried Coating"** means any coating that is not heated above 90°C (194°F) for the purpose of curing or drying.

(3) **"Baked Coating"** means any coating that is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F).

(4) "**Coating**" means a material which can be applied as a thin layer to a substrate, and which either dries or cures to form a continuous solid film or impregnates a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, lacquers, inks and stains but exclude adhesives.

(5) "**Dip Coat**" means a coating application method accomplished by dipping an object into the coating material.

(6) "**Electrical Components**" means internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generate or transmit electrical energy including, but not limited to, generators, transformers, and electric motors.

(7) "**Electronic Components**" means components or assemblies of components including, but not limited to, circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the cabinet in which the components are to be housed.

(8) "**Electrostatic Spray**" means a coating application method accomplished by charging atomized paint particles for deposition by electrostatic attraction.

(9) "**Exempt Compound**" means the same as defined in Rule 2.

(10) "**Existing Operation or Process**" means a surface coating operation or other process emitting VOCs for which a complete application for an Authority to Construct in San Diego County was submitted before (*date of adoption*).

(11) "**Flow Coat**" means a coating application method accomplished by flowing a stream of coating over an object.

(12) "**Hand Application Method**" means a coating application method accomplished by applying a coating by manually held, non-mechanically operated equipment. Such equipment includes, but is not limited to, paintbrushes, hand rollers, rags and sponges.

(13) "**High-Volume Low-Pressure (HVLP) Spray**" means a coating application method which uses pressurized air at a permanent pressure between 0.1 and 10.0 psig, not to exceed 10.0 psig, measured at the air cap of the coating application system.

(14) "**Low-Solids Coating**" means a coating containing one pound of solids or less per gallon of material, as supplied.

(15) "**Medical Device**" means an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article including any component or accessory, that is intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment, or prevention of disease, or is intended to affect the structure or any function of the body.

(16) **"New Operation or Process"** means a surface coating operation or other process emitting VOCs for which a complete application for an Authority to Construct in San Diego County was submitted on or after (*date of adoption*).

(17) **"Organic Solvent"** means any substance containing an organic compound or combination of organic compounds which is liquid at atmospheric pressure and ambient temperature and which is used as a reactant, diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or for other similar purposes.

(18) **"Operation"** means any process that includes one or more pieces of equipment linked by the process flow and resulting in a product that cannot be made if any piece of equipment is removed or not functioning.

(19) **"Precision Optics Components"** means the components used to create high resolution images in optical devices. This does not include eye glasses.

(20) **"Research and Development Operation"** means a small scale operation for the purpose of creating new or improved processes or products, that is conducted by technically trained personnel under the supervision of a research director, and is not used in the manufacture of products for sale or exchange for commercial profit, other than the first-article deliverable product.

(21) **"Roll Coat"** means a coating application method accomplished by rolling a coating onto a flat surface using a roll applicator.

(22) **"Solvent"** means any organic solvent.

(23) **"Source"** means any article, machine, equipment, contrivance, operation or a group of such articles, machines, equipment, contrivances or operations that emits or may emit volatile organic compounds.

(24) **"Solvent Cleaning"** means the removal of uncured adhesives, inks, coatings, and other contaminants such as dirt, soil, and grease from parts, products, tools, machinery, equipment or general work area.

(25) **"Surface Preparation"** means the cleaning of surfaces by utilizing cleaning materials containing VOCs prior to coating, further treatment, sale or intended use.

(26) **"Surface Coating" or "Surface Coating Operation"** means all steps involved in the application, drying and curing of coatings.

(27) **"Touch-up Operation"** means the portion of a surface coating operation which is incidental to the main coating process but necessary to cover minor imperfections or minor mechanical damage incurred prior to intended use.

(28) **"Volatile Organic Compound (VOC)"** means the same as defined in Rule 2.

(29) **"VOC Content per Volume of Coatings, Less Water and Exempt Compounds"** means the weight of VOC per combined volume of VOC and coating solids and is calculated by the equation provided in Rule 2.

(30) **"VOC Content per Volume of Cleaning Material or Low-Solids Coating"** means the weight of VOC per volume of cleaning material or low-solids coating and is calculated by the equation provided in Rule 2.

(31) **"Wipe Cleaning"** means a method of surface preparation or solvent cleaning that is not conducted in a container but performed by physically rubbing the surface with a material such as a rag, paper, sponge or cotton swab moistened with a cleaning material.

(d) **STANDARDS**

(1) VOC Emission Limits

(i) A person shall not conduct any operation that may result in emissions of volatile organic compounds unless one of the following requirements is satisfied:

(A) VOC emissions from such operation are less than 5 tons per calendar year, excluding emissions from cleaning operations; or

(B) VOC emissions are reduced by air pollution control equipment complying with all the applicable requirements of Section (e); or

(C) a surface coating operation is conducted by using air-dried coatings with a VOC content not higher than 420 grams/liter (3.5 lbs/gal) of coating, less water and exempt compounds, as applied, or by using baked coatings with a VOC content not higher than 360 grams/liter (3.0 lbs/gal) of coating, less water and exempt compounds, as applied.

(ii) A person shall not conduct a surface preparation or solvent cleaning operation, including wipe cleaning but excluding cleaning of coating application equipment, unless the VOC content of cleaning material is 50 grams/liter (0.42 lbs/gal), or less as used, or the total vapor pressure of cleaning material is 8 mm Hg at 20°C (68°F) or less.

(2) Application Equipment for Surface Coating Operations.

(i) Coating Application Methods.

No surface coatings shall be applied unless one of the following application methods is used:

(A) Hand application method, or

(B) Dip coat, or

(C) Roll coat, or

(D) Flow coat, or

(E) Electrostatic spray, or

(F) High-volume low-pressure (HVLP) spray. Facilities using HVLP spray shall have available on site pressure gauges in proper operating conditions to measure air pressure at the air cup, or have manufacturer's information regarding the correlation between the air cap pressure and the handle inlet pressure, or

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

(ii) 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:

(A) The cleaning material contains 50 grams or less of VOC per liter of material; or

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

(C) 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 its parts and provided that the cleaned equipment or its parts are drained to the container until dripping ceases; or

(D) A system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes.

(e) **CONTROL EQUIPMENT**

(1) In lieu of complying with the provisions of Section (d) of this rule, an owner/operator may use an air pollution control system which:

- (i) Has been installed in accordance with an Authority to Construct; and
- (ii) Has a combined emissions capture and control device efficiency of at least 85% by weight.

(2) A person electing to use control equipment pursuant to Subsection (e)(1) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified, with Air Pollution Control Officer approval, as necessary to ensure compliance. Such plan shall:

- (i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(ii), 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) Upon approval by the Air Pollution Control Officer, a person subject to the requirements of Section (e) shall implement the Operation and Maintenance plan and shall comply thereafter with the provisions of the approved plan.

(f) RECORDKEEPING REQUIREMENTS

(1) Any person conducting operations subject to this rule shall maintain a current list of each coating, solvent, or other VOC containing material in use, which provides the VOC content and all other data necessary to evaluate compliance, including but not limited to:

- (i) Manufacturer name and identification for each material containing VOCs; and
- (ii) For coatings, other than low-solid coatings, the VOC content expressed in grams per liter (lbs/gal), less water and exempt compounds, as applied and mix ratio of components, if applicable; and
- (iii) Actual oven drying temperature, if applicable; and
- (iv) For surface preparation and cleaning materials or for low-solid coatings, the VOC content expressed in grams per liter (lbs/gal) of cleaning material or low-solids coating as used, and density and mix ratio of components, if applicable; and

(v) For other materials containing VOCs, other than surface coatings, surface preparation or cleaning materials, the VOC concentration per weight or volume of material.

(2) In addition, any person conducting operations subject to this rule shall:

(i) Maintain monthly records of the amount of each coating used; and

(ii) Maintain monthly inventory or dispensing records for each surface preparation and cleaning material or other VOC containing materials used.

(3) In addition, any person using control equipment pursuant to Section (e) of this rule shall maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan pursuant to Subsection (e)(2). Such records shall be sufficient to document continuous compliance with Subsection (e)(1)(ii) during periods of emission producing activities.

(4) All records shall be retained onsite for at least three years and shall be made available to the District upon request.

(g) MANUFACTURER AND SUPPLIER INFORMATION

Any person, who manufactures, sells, offers for sale, or supplies to users in San Diego County any coating, coating component, solvent cleaning material, or any other VOC containing material that is used in an operation that may be subject to this rule shall provide the following information to customers:

(1) The manufacturer's name and identification of each coating or coating component, surface preparation material, equipment cleaning material or any other material containing VOCs; and

(2) The VOC content of coatings, as supplied, expressed in grams per liter or pounds per gallon, less water and exempt compounds; and

(3) The VOC content of low-solid coatings, as supplied, surface preparation or solvent cleaning materials or any other materials containing VOCs in grams per liter or pounds per gallon; and

(4) Any other necessary information enabling a user to comply with the requirements of Section (d) of this rule.

(h) TEST METHODS

(1) The VOC content of coatings containing more than 50 grams of VOC per liter of material 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 Method 304 (Determination of Volatile Organic Compounds in Various Materials) as they exist on *(date of adoption)*.

(2) The VOC content of solvents or coatings containing 50 grams of VOC per liter of material or less shall be determined by the South Coast Air Quality Management District (SCAQMD) Method 313 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), SCAQMD Method 308 (Quantification of Compounds by Gas Chromatography) as they exist on *(date of adoption)*, or any other alternative test methods approved by EPA, California Air Resources Board, and the Air Pollution Control Officer.

(3) Calculation of total VOC vapor pressure for materials subject to Subsection (d)(1)(ii) of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures." If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsection (d)(1)(ii), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-97(2007), or its most current version.

(4) Measurements of transfer efficiency pursuant to Subsection (d)(2)(i)(G) 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)*.

(5) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(1)(ii) 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.

(6) Capture efficiency 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.

(i) COMPLIANCE SCHEDULE

(1) All new operations or processes subject to this rule shall comply with all applicable requirements upon initial startup.

(2) All existing operations or processes subject to this rule shall comply with all applicable requirements no later than *(12 months after date of adoption)*.

(3) The owner or operator of an existing operation that chooses to comply with the rule by installing air pollution control equipment pursuant to Section (e) of this rule shall:

(i) By (*6 months after date of adoption*), submit to the Air Pollution Control Officer an application for an Authority to Construct and a Permit to Operate an air pollution control system as specified in Section (e).

(ii) By (*12 months after date of adoption*), comply with all applicable rule requirements.